UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

THE STONE FAMILY TRUST,

Plaintiff,

v.

CREDIT SUISSE AG, CREDIT SUISSE SECURITIES (USA) LLC, TIDJANE THIAM and DAVID R. MATHERS,

Defendants.

Case No. 1:19-cv-05192-AT-SN

SECOND AMENDED COMPLAINT FOR VIOLATIONS OF THE SECURITIES LAWS

DEMAND FOR JURY TRIAL

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Plaintiff The Stone Family Trust ("Plaintiff"), by its undersigned attorneys, for its complaint against Defendants, alleges the following based upon personal knowledge as to its own acts, and upon information and belief as to all other matters based on the investigation conducted by and through its attorneys, which included, among other things, consultations with experts, a review of U.S. Securities and Exchange Commission ("SEC") filings of Credit Suisse Group AG and Credit Suisse AG, press releases, analyst reports, media reports, and other publicly disclosed reports and information about Credit Suisse and the VelocityShares Daily Inverse VIX Short Term ("XIV") exchange traded note ("ETN"). Plaintiff believes that substantial additional evidentiary support will exist for the allegations set forth herein after a reasonable opportunity for discovery.

I. NATURE OF ACTION

1. This case arises from the collapse of XIV, an ETN issued by defendant Credit Suisse AG and underwritten by defendant Credit Suisse USA (collectively, "Credit Suisse"). XIV was designed to replicate the inverse of the daily performance of the S&P 500 VIX Short-Term Futures Index (ticker symbol "SPVXSP") (the "VIX Short-Term Futures Index"), the value of which is based on a hypothetical portfolio of the two nearest-to-expiration futures contracts on the CBOE (VIX) Volatility Index (the "VIX Index" or the "VIX").[1] This meant that, generally speaking, if the VIX Short-Term Futures Index declined by a certain percent, XIV was designed to rise by that same percentage, and *vice versa*. Accordingly, investors purchased XIV if they believed that volatility would decline in the immediate future.

2. Unbeknownst to investors, including Plaintiff, however, there were material risks to investing in XIV which were not disclosed in XIV's offering documents or any other public

[1] The VIX Index, referred to as Wall Street's "fear index" or "fear gauge," measures the stock market's expectation of volatility implied by S&P 500 index options. Essentially, the VIX reflects how much the market thinks the S&P 500 Index will fluctuate over the next 30 days.

statements of Credit Suisse prior to February 5, 2018. Those risks materialized in spectacular fashion on February 5, 2018 when XIV lost 96% of its value—or approximately $1.56 billion—devastating XIV investors. Plaintiff, which purchased more than $43 million in XIV ETNs from 3:50 p.m. to 5:38 p.m. that day, lost $37.7 million.

3. XIV's offering documents consisted of a registration statement on Form F-3 filed with the SEC on June 8, 2017, which was subsequently amended, including by means of a prospectus supplement for the offer and sale of XIV ETNs filed with the SEC on January 29, 2018, on Form 424B2 (the "2018 Supplement"), which was incorporated into and formed part of the registration statement (the "Registration Statement") (collectively, the "Offering Documents").

4. As the 2018 Supplement disclosed, Credit Suisse—like other providers of inverse and leveraged volatility-linked exchange traded products ("ETPs")—hedged its obligations with respect to XIV by purchasing and selling securities and derivatives, primarily VIX futures. Specifically, Credit Suisse hedged its XIV obligations by purchasing and selling the two nearest-to-expiration VIX futures contracts used to compute the VIX Short-Term Futures Index, to which XIV was inversely benchmarked.

5. Credit Suisse omitted to disclose in the 2018 Supplement or otherwise prior to February 5, 2018, however, that the considerable growth which had occurred in the market capitalizations of inverse and leveraged volatility-linked ETPs (including, primarily, XIV) by at least January 29, 2018, had given rise to a highly material risk—namely, that any relatively small spike in implied volatility would lead to a liquidity gap[2] in the VIX futures market as Credit Suisse and other ETP providers rebalanced their respective hedges. The liquidity gap would cause a

[2] The term liquidity gap describes a discrepancy or mismatch in the supply or demand for a security.

tremendous feedback loop of buying which would propel VIX futures skyward, causing XIV's value to plummet in a matter of minutes. Further, the risk of a liquidity gap would be heightened during periods of low volatility because at such times—which happened to be the case as of January 29, 2018—even relatively small absolute increases in volatility would be significant on a percentage basis. Simply put, there were not enough VIX futures contracts available from liquidity providers to absorb the demand of those instruments in such an event without a run on the market. A spike in volatility would cause a disproportionately large move in VIX futures as participants rushed to rebalance their hedges.

6. Additionally, volatility-linked ETP providers, including Credit Suisse, rebalanced their portfolios at around the same time each day—specifically, between 4:00 p.m. (when the regular trading session of the stock market closed) and 4:15 p.m. ET (when the VIX futures market closed). This meant that Credit Suisse and other parties acting to affect its hedge would generally be purchasing VIX futures to rebalance XIV at times when demand for those futures was highest. Exacerbating the risk of a liquidity gap, XIV was also subject to the risk of front-running by Credit Suisse and other industry participants—*i.e.*, banks, market-makers, specialist volatility trading firms, and hedge funds—which had access to proprietary market data, insider knowledge about the hedging methodologies used by Credit Suisse, and non-public modelling capabilities, all of which gave them visibility into the XIV's rebalancing needs based on market movements each trading day.

7. By at least January 29, 2018, these undisclosed risks guaranteed XIV's demise, setting the stage for the XIV to suffer a self-destructive feedback loop or "death spiral": if volatility rose (causing XIV to decline), market participants including Credit Suisse would rush to buy VIX futures, thereby driving up their prices, which would cause XIV's value to decline further.

The decline in XIV's value would necessitate that Credit Suisse purchase even more VIX futures—at higher prices—to complete its rebalancing. This would propel VIX futures up even more, driving XIV's value down even further, and so on until XIV collapsed. Further, when such destructive "death spiral" ultimately developed, it would obliterate XIV's value in a matter of minutes.

8. Had the pertinent risks been disclosed, no reasonable investor, including Plaintiff, would have purchased or held XIV after 4:00 p.m. ET on any day—and certainly on any day when volatility had increased appreciably.

9. Nevertheless, in the 2018 Supplement, Defendants (defined herein) not only omitted to disclose these risks, but implied that they did not exist, stating that "***we and our affiliates have no reason to believe that our or their hedging activities will have a material impact on the level of the applicable underlying Index*** . . . ."

10. Notably, Credit Suisse had included this statement in every XIV pricing supplement it issued since November 2010, when the market capitalization of volatility-linked ETPs, including XIV, was so small that the possibility of a liquidity gap in VIX futures was non-existent. Given the considerable growth which had occurred in the market capitalizations of volatility-linked ETPs, including XIV, by at least January 29, 2018, however, the statement was materially misleading in light of the omission of what would transpire if volatility suddenly increased. The 2018 Supplement nevertheless repeated the statement verbatim and without qualification.

11. Furthermore, the circumstances give rise to a strong inference that, at all relevant times, and at least by January 29, 2018, Credit Suisse knew about the risk of a liquidity gap in VIX futures. Credit Suisse had unique insider visibility into the VIX futures market as the issuer of some of the largest volatility-linked ETPs then available—not just XIV, but also the TVIX (2x

long VIX short-term) and the TVIZ (2x long VIX medium-term). Credit Suisse was also a major participant in the volatility market as a market-maker and a trader for its own account. Credit Suisse was therefore intimately familiar with, and monitored and analyzed, *inter alia*, the volume and open interest in the VIX futures market, the slippage encountered by traders therein,[3] and other factors that would affect its ability to hedge and trade.

12. Credit Suisse also closely monitored its ETN obligations and rebalancing requirements, including specifically those for XIV, in real time both to protect its own capital and to comply with regulatory requirements. Credit Suisse needed to ensure that, each day, it would be able to obtain the correct number of VIX futures to hedge entirely its exposure to its volatility-linked ETNs, including XIV. Otherwise, Credit Suisse would be left owning an unauthorized unhedged exposure to volatility through those obligations, putting its own firm's capital at risk.

13. Credit Suisse also had to comply with, and to monitor its compliance with, *inter alia*, CBOE Futures Exchange ("CFE") Rule 412A. Rule 412A requires large traders like Credit Suisse to notify the CFE if they hold or expect to hold 50,000 or more VIX futures contracts. Notably, this 50,000-contract "position accountability level" was set by the CFE to "reduce the potential risk of price distortions and market disruptions."

14. Due to the growth of the volatility ETP market, and particularly due to the massive growth in the value and number of XIV notes issued as well as increasing scrutiny by Credit Suisse's risk managers and government regulators, Defendants, at minimum, knew or recklessly disregarded that there was not sufficient liquidity—that is, not enough VIX futures—to allow

[3] Slippage refers to the difference between the expected price of a trade and the price at which the trade is executed. Slippage can occur when a large order is executed but there is not enough volume at the chosen price to maintain the current bid/ask spread.

volatility-related product issuers like Credit Suisse to hedge their positions during volatility spikes, and that their hedging would likely cause a massive spike in the VIX futures or a market disruption.

15. As alleged in detail below, during at least three brief occasions during the life of XIV, market volatility spiked significantly. During these brief volatility spikes, VIX futures prices spiked at the end of the trading day in a manner disproportionate to what would normally be expected based on market volatility alone. These price movements were caused by Credit Suisse and other volatility-linked ETP issuers placing hedging trades to protect their balance sheets, *i.e.*, buying VIX futures to offset the risk posed by the volatility ETPs they issued, in a VIX futures market with limited liquidity. After observing these prior episodes of market volatility, Defendants discerned an ability to depress prices for XIV notes by purchasing VIX futures contracts on days when volatility spiked. Further, Defendants used this knowledge as part of a manipulative scheme to sell millions of XIV notes before engineering a near-total collapse in their price through just 15 minutes of its own trading. Defendants' scheme cost investors $1.8 billion while at the same time allowing Credit Suisse to realize more than $475 million in gains.

16. Credit Suisse had risk reporting mechanisms and protocols in place to ensure senior executives actively monitored and managed the risks XIV posed to Credit Suisse. Under these protocols, the liquidity issues in the VIX futures market were reported to Defendants Thiam and Mathers.

17. Moreover, fearing a VIX futures liquidity gap, Credit Suisse took steps to protect itself against that risk. Specifically, on July 1, 2016, Credit Suisse began conditioning the issuance of additional XIV ETNs on the purchasers' "agreement to sell to Credit Suisse certain hedging instruments consistent with Credit Suisse's hedging strategy, including but not limited to swaps."

This policy enabled Credit Suisse to issue additional ETNs while hedging its exposure to those securities via swaps, instead of through trading VIX futures.

18. Significantly, however, swaps do not eliminate risk but merely transfer it from one party to another. By requiring counterparties to sell Credit Suisse swaps consistent with Credit Suisse's hedging strategy, Credit Suisse simply transferred its own risk and hedging needs to its swap counterparties. These swap counterparties were then compelled to purchased and sell the same VIX futures that Credit Suisse would have—in the absence of the swaps—needed to purchase and sell itself. Thus, while Credit Suisse protected itself against the risk of a VIX futures liquidity gap, the liquidity-gap risks to which XIV investors were exposed continued to exist, and, in fact, dramatically increased due the expanding float and market capitalization of XIV.

19. Despite actively moving to protect Credit Suisse from this liquidity threat, Defendants did nothing to protect XIV's investors or disclose the liquidity threat to their investments. Rather, Defendants saw an opportunity to use the lack of liquidity to profit at investors' expense. Due to Credit Suisse's risk protocols and modeling, Defendants knew or recklessly disregarded that another volatility spike similar to the three Credit Suisse had experienced in recent years was inevitable. Further, based on their experience with these previous volatility spikes, Defendants knew that when the inevitable next volatility spike occurred, Credit Suisse could easily amplify the spike in VIX futures prices, and because XIV prices are inversely related to VIX futures prices, Defendants could cause XIV to be driven into the ground. Indeed, as described in detail below, Credit Suisse reserved itself the right to announce an "Acceleration Event" should XIV's price decline by 80% or more, giving it the ability to pay XIV investors pennies on the dollar in a forced redemption of their notes.

20. Nevertheless, Defendants continued to grow the size of XIV, issuing and selling millions more XIV notes to unsuspecting investors, exacerbating the inevitable liquidity issues in the VIX futures market when the next volatility spike came. Unbeknownst to investors, Defendants were betting that, once volatility returned, as it was statistically certain to do, they could drive a liquidity squeeze in the VIX futures market that would cause the price of those futures to spike, triggering an Acceleration Event and allowing Credit Suisse to profit at XIV investors' expense. As one analyst later put it, Credit Suisse induced XIV investors to effectively "collect[] pennies in front of a steamroller."

21. Barely a week after the January 29, 2018 issuance of the 2018 Supplement pursuant to which Credit Suisse offered an additional 16.275 million XIV notes, the undisclosed risk of a VIX futures liquidity gap, exacerbated by Credit Suisse's own hedging activity, suddenly materialized. On Monday, February 5, 2018, the S&P 500 Index fell 4% amid concerns about rising bond yields and higher inflation. By historical standards, this decline in the stock market was modest, and by the close of regular trading at 4:00 p.m. ET, the VIX Short-Term Futures Index had risen 33%, from a prior daily settlement value of 49.43 to 65.75. As expected, XIV's Indicative Value fell an equivalent 33%, from a prior daily close of $108.37 to $72.59 as of 4:00 p.m. ET on February 5, 2018. Trading was orderly and positions in the stock, equity options, and VIX futures markets remained liquid.

22. However, between 4:00 p.m. and 4:15 p.m. ET, as Credit Suisse, its swap counterparties, and other providers of volatility-linked ETPs rebalanced their hedges in an overly crowded VIX futures market, the VIX futures market spiraled out of control—precisely as Credit Suisse had expected and planned. The prices of VIX futures rose sharply, which in turn drove down XIV's value, resulting in a feedback loop which required the purchase of yet more VIX

futures by Credit Suisse, its swap counterparties, and other volatility-linked ETP issuers, causing XIV's value to decline further, and so forth. The undisclosed peril of a "death spiral" ensued.

23. By 4:15 p.m. ET, Credit Suisse knew that its large purchases of VIX futures contracts had driven XIV's value to approximately $20, which was more than an 80% drop in value from the previous day's closing value, and thus that an Acceleration Event had occurred. But Defendants, instead of announcing an Acceleration Event, halting trading, or otherwise protecting investors, continued to drive a liquidity squeeze in the VIX futures market at the expense of XIV investors.

24. Further, by 4:00 p.m. ET, XIV's value had plummeted to zero, recovering to a mere $4.22 by 4:15 p.m. ET. In total that day, XIV investors lost over $1.56 billion—96% of XIV's total value—with the bulk of that loss transpiring in the 15-minute period from 4:00 p.m. and 4:15 p.m. ET.

25. Significantly, the collapse in XIV's value occurred after the equities market had closed its trading session, and was, therefore, largely, if not completely, unrelated to changes in equity market value or volatility, or any other market-wide phenomenon. Indeed, in afterhours trading from 4:00 p.m. to 4:15 p.m. ET on February 5, 2018, the VIX Index rose just 13%, from 32.98 to 37.32. Rather, the collapse in XIV's value during that time period was due to the undisclosed material risks inherent in the rebalancing requirements of XIV, given what was, by at least January 29, 2018, a VIX futures market that was insufficiently liquid to handle those requirements without an enormous impact on VIX futures prices.

26. In the aftermath of XIV's collapse, on February 6, 2018, trading in the XIV was temporarily halted by market regulators. Credit Suisse declared an "Acceleration Event" under

the XIV Offering Documents and forced all XIV investors, including Plaintiff, to redeem their ETNs for $5.99 per ETN, a small fraction of what they had paid.

27. Aside from the threat of a liquidity gap in VIX futures, the 2018 Supplement omitted to disclose an additional material risk relating to XIV—namely, that the Indicative Value disseminated by XIV's Calculation Agents generally was not properly updated and was therefore inaccurate from 4:00 p.m. to at least 6:00 p.m. ET each trading day.

28. As disclosed in the 2018 Supplement, XIV's economic value was determined through a formula based on the daily inverse performance of the VIX Short-Term Futures Index. XIV's Calculation Agents calculated and disseminated that value in the form of XIV's Indicative Value under the ticker symbol XIVIV.

29. The 2018 Supplement informed investors that the Indicative Value was "designed to approximate the economic value of [XIV] at a given time" and that such value was based upon the VIX Short-Term Futures Index, which it stated "is calculated in real time . . . applying real time prices of the relevant VIX futures contracts." Furthermore, the 2018 Supplement stated that the Indicative Value "will be calculated every 15 seconds on each Index Business Day …."

30. The level of the Indicative Value was highly material to XIV investors. Upon maturity, redemption, or acceleration of the ETNs, Credit Suisse was obligated to pay investors based on the Indicative Value. The Indicative Value also allowed investors to determine whether XIV was trading at a premium or discount to its economic value. The Registration Statement also contained important stipulations relating to the Indicative Value, namely, that if the Indicative Value ever fell to zero, it would be marked at zero "on that day, and all future days …" In addition, if the Indicative Value fell 80% or more in a day, Credit Suisse was entitled to "affect an Event Acceleration" of the ETNs, compelling their redemption at the Indicative Value.

31. Nevertheless, unbeknownst to investors, including Plaintiff, Standard & Poor's ("S&P"), which published the VIX Short-Term Futures Index (which was used by XIV's Calculation Agents to compute the Indicative Value), inexplicably did not properly update that index from 4:00 p.m. to at least 6:00 p.m. ET on any trading day for at least the four years prior to February 5, 2018. Instead, S&P published stale and/or inaccurate values during those time periods. As a result, the Indicative Value of XIV was therefore also generally stale and/or inaccurate at those times.

32. Prior to February 5, 2018, the inaccuracy of the Indicative Value from 4:00 p.m. to at least 6:00 p.m. ET was immaterial given that volatility generally was stable after 4:00 p.m. ET, when the regular trading session for stocks closed.

33. However, after 4:00 p.m. ET on February 5, 2018, unbeknownst to XIV investors, the Indicative Value was overstated materially, obscuring XIV's instability. VIX futures prices skyrocketed, yet because of the failure of the S&P data feed for the VIX Short-Term Futures Index to properly update, those price changes did not show up in the Indicative Value. Instead, the Indicative Value remained relatively constant at around $25 for 55 minutes, as XIV's economic value plummeted to virtually nothing. At times during this period, the Indicative Value was overstated by nearly 500%.

34. Notably, by at least 4:10:15 p.m. ET on February 5, 2018, XIV's economic value had fallen more than 80%, entitling Credit Suisse to "effect an Event Acceleration." Furthermore, at 4:11:00 p.m. ET, XIV's economic value temporarily fell below zero, meaning that Credit Suisse was entitled to mark the Indicative Value at zero "on that day, and all future days ….." Yet investors had no reason to suppose that these material thresholds had been breached.

35. Given the inaccuracy of the Indicative Value, investors like Plaintiff, which traded XIV after 4:00 p.m. ET on February 5, 2018, had no way of knowing that the prices of VIX futures had skyrocketed after the close of the regular trading session of the stock market, triggering a "death spiral" feedback loop which was wiping out XIV's economic value.

36. Further, given Credit Suisse's omission to disclose in the offering documents or otherwise that the Indicative Values were not properly updated from 4:00 p.m. to at least 6:00 p.m. ET each day and were therefore stale and/or inaccurate, investors like Plaintiff that were trading XIV in the afterhours had no reason to check on the prices of the VIX futures from which they potentially could have deduced on February 5, 2018, that the economic value of XIV had collapsed and/or was in the midst of collapsing.

37. In addition to the omissions in the 2018 Supplement, Plaintiff complains of another material non-disclosure by Credit Suisse. Specifically, Nasdaq Listing Rule 5250(b)(1) requires issuers listed on Nasdaq promptly to disclose to the public "any material information that would reasonably be expected to affect the value of its securities or influence investors' decisions." Violating that Rule, Credit Suisse omitted to issue a disclosure at any time on February 5, 2018 warning investors of the catastrophic events which lay immediately ahead and/or which were in the midst of transpiring and/or which had transpired with respect to XIV.

38. At minimum, the confluence of factors that existed on the afternoon of February 5, 2018 "would reasonably be expected to affect the value" of XIV and "influence investors' decisions." Given the considerable market capitalizations of XIV and other volatility-linked ETPs by February 5, 2018, and the activity in the stock market that day, including a spike in the VIX Index (from historically low levels), there was a material risk that a liquidity gap in the VIX futures could develop, propelling VIX futures prices skyward and obliterating XIV's value.

39. Furthermore, because it closely monitored its XIV obligations and rebalancing requirements in real time, on February 5, 2018, Credit Suisse knew or recklessly disregarded that: (i) XIV's daily rebalancing required the purchase of in excess of 50,000 VIX futures—an amount exceeding the "position accountability level" of CFE Rule 412A (which was established to "reduce the potential risk of price distortions and market disruptions")—by 3:50 p.m. ET; (ii) XIV's daily rebalancing requirements had jumped to more than 59,000 VIX futures contracts by 4:00 p.m. ET; (iii) a liquidity gap had, in fact, materialized in the VIX futures market—causing XIV's value to decline by more than 80% and entitling Credit Suisse to "effect an Event Acceleration"—by at least 4:10:15 p.m. ET; (iv) XIV's economic value temporarily fell below zero—meaning that Credit Suisse was entitled to mark the Indicative Value at zero "on that day, and all future days …."—at 4:11:00 p.m. ET; and (v) XIV's economic value was just $4.22 at 4:15 p.m. ET.

40. All these developments, whether taken individually or together, "would reasonably be expected to affect the value" of XIV and "influence investors' decisions." Thus, under Listing Rule 5250(b)(1), Credit Suisse owed a duty to "make prompt disclosure to the public" of them. At no time on the afternoon of February 5, 2018, however, did Credit Suisse issue any public disclosure as it was required to do. Instead, Credit Suisse remained silent, as investors, including Plaintiff, continued to purchase a security that was imploding.

41. Moreover, it is apparent that Credit Suisse was able to, and did, predict in advance what would happen to VIX futures after 4:00 p.m. ET on February 5, 2018. This can be inferred from the fact that, *inter alia*, Credit Suisse profited handsomely from its own proprietary trading that day. On April 25, 2018, Credit Suisse reported that it had generated approximately $490 million in revenues for its equity sales and trading division for the fiscal quarter ended March 31, 2018, a 30% increase compared to the previous quarter, stating that the positive results were "due

to more favorable trading conditions, particularly higher levels of volatility which benefited our derivatives business." It is believed that a substantial portion of those increased revenues stemmed from opportunistic trading by Credit Suisse (*i.e.*, front-running) ahead of XIV's rebalancing on February 5, 2018, which was the only day that fiscal quarter which had "particularly higher levels of volatility …." Indeed, on May 23, 2018, CNBC reported that Goldman Sachs—which is believed to have been a leading XIV swap counterparty to Credit Suisse—made $200 million in profits trading volatility on February 5, 2018 alone, an amount "on par with what the firm's derivatives unit typically makes in an entire year."

42. It is thus clear that Credit Suisse was not caught flat-footed or unawares by the liquidity gap in VIX futures on February 5, 2018. Instead, it anticipated what would happen with a high degree of clarity and positioned its proprietary trades accordingly, generating enormous profits.

43. Had Credit Suisse issued a Listing Rule 5250(b)(1) disclosure on the afternoon of February 5, 2018, investors like Plaintiff contemplating XIV trades would have been forewarned of the catastrophic events which lay immediately ahead and/or which were in the midst of transpiring and/or which had just occurred. No reasonable investor, including Plaintiff, would have purchased or held XIV after 4:00 p.m. ET on February 5, 2018, had Credit Suisse issued such a notice as it was obligated to do.

44. Nevertheless, as a result of Credit Suisse's omission to issue a Rule 5250(b)(1) disclosure, investors, including Plaintiff, believing—correctly—that stock market volatility would recede after the modest spike which had occurred during the regular trading session of the stock market that day, purchased more than $700 million in XIV ETNs after 4 p.m. ET. Indeed, Plaintiff continued to purchase XIV ETNs as late as 5:38 p.m. ET. Due to the risks which Credit Suisse

omitted to disclose at any time through February 5, 2018, however, the value of those investments was virtually wiped out.

45. The next day, February 6, 2018, Credit Suisse announced that it was redeeming all XIV notes, citing as its reason that an Acceleration Event occurred as a result of the greater than 80% drop in XIV's Intraday Indicative Value the previous day. On February 21, 2018, XIV was terminated and all notes were redeemed at $5.99 per note.

46. Tellingly, Credit Suisse also announced that, unlike XIV investors, it had not suffered any losses on February 5, 2018, admitting it protected itself through its hedging activities. Although not disclosed at the time, Credit Suisse not only protected itself through its hedging activities, but also profited handsomely, making hundreds of millions of dollars at the expense of XIV investors from opportunistic trading on its own account.

47. The events of February 5, 2018 shocked the market, with reporters and investors questioning Credit Suisse as to how XIV could have collapsed so quickly and dramatically, causing investors to lose billions of dollars. Further, the SEC began to investigate Credit Suisse and its role in XIV's collapse.

48. In response, Defendants actively attempted to conceal the fraud by issuing a series of incoherent explanations, many of which were patently false. For example, on February 14, 2018, Defendant Thiam was interviewed by Bloomberg, where he stated that the Acceleration Event "was actually to protect investors. Because the product stopped trading, it was quasi-impossible to price, and we needed to give certainty to the market at the market open. So before the morning—and this—we went through a long process, we don't make these decisions lightly, there are people involved from every aspect of the business, from compliance to the front office—and they collectively—I don't make those types of decisions—they collectively reached a decision

which was in the interest of investors, which was to close it. But there are quite a few products like that in the market, because they serve a useful purpose. They allow market participants to manage their risk better."[4]

49. Given that investors lost approximately $1.8 billion in value, it strains credulity to claim that the Acceleration Event, which locked in the redemption value of XIV notes Credit Suisse was required to pay at pennies on the dollar, protected investors.

II. JURISDICTION AND VENUE

50. The claims alleged herein arise under §§11 and 15 of the Securities Act of 1933 (the "Securities Act"), 15 U.S.C. §§77k and 77o, and §§9, 10(b), and 20(a) of the Securities Exchange Act of 1934 (the "Exchange Act"), 15 U.S.C. §§78i, 78j(b) and 78t(a), and Rule 10b-5, 17 C.F.R. §240.10b-5, promulgated thereunder by the SEC.

51. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §1331, §22 of the 1933 Act, and §27 of the Exchange Act, and pursuant to 28 U.S.C. § 1367.

52. Venue is proper in this District pursuant to §22 of the 1933 Act, §27 of the Exchange Act, and 28 U.S.C. §1391(b). Many of the acts charged herein, including the dissemination of materially false and misleading information, occurred in substantial part in his District. In addition, Defendants reside or transact business in this District, and the securities that are the subject of this complaint traded in this District on the Nasdaq Stock Market ("Nasdaq").

53. In connection with the acts alleged in this complaint, defendants, directly or indirectly, used the means and instrumentalities of interstate commerce, including, but not limited

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[4] *See Credit Suisse CEO Thiam on Trading Revenue and Equities Volatility,* Bloomberg TV (Feb. 14, 2018, 2:35 AM), https://www.bloomberg.com/news/videos/2018-02-14/credit-suisse-ceo-thiam-on-trading-revenue-and-equities-volatility-video?sref=DkDOJxYw.

to, the mails, interstate telephone communications, and the facilities of the Nasdaq, a national securities exchange.

III. PARTIES

A. Plaintiff

54. Plaintiff is an irrevocable trust formed in the Commonwealth of Pennsylvania on April 30, 2013. All the beneficiaries, as well as the creator of SFT, reside and are domiciled in Pennsylvania. On February 5, 2018, Plaintiff purchased 900,000 XIV notes at prices between $22.21 and $95.38, at a cost of over $43 million, between 3:50 p.m. and 5:38 p.m. The purchases were initiated in Villanova, Pennsylvania, and were affected via telephone from that location to the broker-dealers which completed the purchase. Plaintiff suffered approximately $37.7 million in losses on its XIV investment in under a two-hour period of time.

B. Defendants

55. Defendant Credit Suisse AG is the primary operating subsidiary of Credit Suisse Group AG, a Swiss multinational financial services holding company with its headquarters in Zurich, Switzerland. Credit Suisse AG was the issuer of XIV.

56. Defendant Credit Suisse Securities (USA) LLC ("CSSU") is a United States-based broker-dealer, headquartered in New York, New York, and an affiliate of Credit Suisse AG. CSSU served as an underwriter and placement and redemption agent for XIV. CSSU charged a creation fee of up to approximately 0.15% times the closing indicative value of the XIV on the date on which Credit Suisse priced new notes and charged investors a redemption charge of 0.05% times the closing indicative value on any XIV ETNs that were redeemed earlier than the redemption date at the investor's option.

57. Credit Suisse AG and CSSU are collectively referred to herein as "Credit Suisse."

58. Defendant Tidjane Thiam ("Thiam") has served as the CEO of Credit Suisse and as a member of the Executive Board at Credit Suisse since 2015. As part of his duties as CEO, defendant Thiam was a member of the Capital Allocation and Risk Management Committee ("CARMC").

59. Defendant David R. Mathers ("Mathers") has served as the CFO of Credit Suisse and a member of the Executive Board since 2010. As part of his duties as CFO, defendant Mathers was a member of the CARMC and the chair of the Valuation Risk Management Committee ("VARMC").

60. Defendants Thiam and Mathers together are referred to herein as the "Individual Defendants." The Individual Defendants, in part because of their positions with Credit Suisse, possessed the power and authority to control the contents of Credit Suisse's reports to the SEC, as well as its press releases and presentations to securities analysts, money and portfolio managers, and investors, *i.e.*, the market. Each Individual Defendant made or controlled the public statements alleged herein to be false or misleading, including offering documents and other public statements on behalf of Credit Suisse, and had the ability and opportunity to prevent those statements from being disseminated to the market or cause them to be corrected.

61. Credit Suisse and the Individual Defendants are collectively referred to herein as "Defendants."

IV. FACTUAL ALLEGATIONS

A. The XIV ETN

62. The S&P 500 Index is a capitalization-weighted index that tracks the performance of five hundred large market capitalization companies utilizing the total market value of their outstanding shares.

63. Put and call options on the S&P 500 Index are financial derivatives created by, and made available to investors on, the CBOE. Market participants trade the products based upon their belief about the direction in which the S&P 500 Index will move.

64. In 1993, the CBOE created the "VIX Index," a measurement of the market's expectations of near-term volatility as conveyed by the S&P 500 options prices. The CBOE calculates the VIX Index based on the real-time pricing of S&P 500 put and call option contracts by averaging the weighted prices of such options over an array of strike prices.

65. Individuals cannot trade the VIX Index, but they can execute trades in VIX futures contracts. VIX futures contracts are exchange-traded derivative products that were created to allow market participants to trade in implied future volatility of the S&P 500 (as derived from put and call contracts), based on their assessment and predictions regarding future movements of the VIX Index.

66. The S&P 500 VIX Short-Term Futures Index (ticker symbol "SPVXSP") (previously defined as the "VIX Short-Term Futures Index"), published by S&P, models the outcome of holding long positions in VIX futures. The VIX Short-Term Futures Index uses prices of the two nearest-to-expiration monthly VIX futures contracts to replicate a position that rolls the nearest month VIX futures to the next month daily in equal fractional amounts, resulting in a near-constant one-month rolling long position in first and second month VIX futures. In effect, the VIX Short-Term Futures Index represents the market's prediction as to how investors expect the VIX Index to perform over the subsequent thirty days.

67. In 2010, VelocityShares created the VelocityShares Daily Inverse VIX Short-Term ETN, which became known by its ticker symbol, "XIV" (the reverse spelling of VIX). XIV was

designed to track the daily inverse performance of the VIX Short-Term Futures Index. That same year, Credit Suisse acquired the right to issue XIV.

68. As an ETN, XIV was an unsecured debt instrument traded on the NASDAQ exchange. Like a traditional promissory note or bond, owners of XIV had the right to redeem their ETNs upon maturity. But, unlike a traditional promissory note, the amount an XIV investor would receive upon redemption (in other words, XIV's underlying economic value) did not consist of principal with accrued interest. Rather, XIV's economic value was determined through a formula based on the daily inverse performance of the VIX Short-Term Futures Index.

69. By the terms of the offering documents, XIV's Calculation Agents calculated and disseminated that economic value in the form of the Indicative Value under the ticker symbol XIVIV.

B. Credit Suisse Hedges Its Liabilities in Connection with XIV Using VIX Futures

70. Credit Suisse derived income from XIV principally from the fees it collected on the product, while using hedges to neutralize its liabilities in connection therewith. As disclosed in the 2018 Supplement, Credit Suisse—like other providers of inverse and leveraged volatility-linked ETPs—hedged its obligations with respect to XIV by purchasing and selling securities and financial derivatives, primarily VIX futures. Specifically, Credit Suisse hedged its XIV obligations by purchasing and selling the two nearest-to-expiration VIX futures contracts used to compute the VIX Short-Term Futures Index, to which XIV was inversely benchmarked. This structure ensured that Credit Suisse would make money irrespective of the direction of how XIV performed.

71. In simplified terms, the hedge worked as follows: If volatility declined, the VIX Short-Term Futures Index would fall, causing XIV's economic value to rise, thereby increasing

Credit Suisse's obligations to XIV investors. To offset this liability, Credit Suisse would sell or "short" VIX futures.[5] That way, as the VIX Short-Term Futures Index declined, Credit Suisse would profit from that decline, offsetting its increased liability.

72. Conversely, if volatility rose, the VIX Short-Term Futures Index would also rise, causing XIV's economic value to decline, decreasing Credit Suisse's obligations to XIV investors. In this instance, Credit Suisse would do the opposite—namely, buy VIX futures. Thus, a decline in the XIV would result in Credit Suisse purchasing VIX futures in order to hedge its exposure and insulate itself from market risk, while still making money on investor fees.

73. Although not disclosed in the XIV offering documents, it is now clear that Credit Suisse (as well as providers of other volatility-linked ETPs) rebalanced their hedge portfolios at around the same time each day—between 4:00 p.m. (when the regular trading session of the stock market closed) and 4:15 p.m. ET (when the VIX futures market closed).

74. Credit Suisse's daily rebalance involved purchasing or selling VIX futures to account for the day's price change in the VIX Short-Term Futures Index, any changes in the constituents and/or the constituent weights of the VIX Short-Term Futures Index, and any new investment in or disinvestment from XIV. The sum of these factors determined the correct number of VIX futures contracts that Credit Suisse needed to hold to hedge entirely its exposure to XIV.

75. Simply put, if the VIX Short-Term Futures Index rose during a trading day, Credit Suisse needed to purchase VIX futures in quantities adequate to rebalance its hedge. Conversely, if the VIX Short-Term Futures Index fell, Credit Suisse needed to sell VIX futures to match. Credit Suisse needed to ensure that, each day, it was able to end up with the correct number of VIX futures

[5] "Shorting" a security generally results in a gain to the investor if the price of the security declines within a specified period of time.

to hedge entirely its exposure to the ETNs. Otherwise, Credit Suisse would own a massive unhedged exposure to volatility through those obligations, putting its own capital at risk.

C. Volatility Declines to Historically Low Levels while the Volatility-Linked ETP Market Experiences Considerable Growth

76. Beginning in early 2017, markets entered a period of historically low volatility. By May 2017, the VIX Index had closed below 10, less than half its historical average of approximately 20. Over the course of 2017, volatility remained abnormally low. According to analysis performed by the investment bank Goldman Sachs, the S&P 500 had a realized volatility score of only 7 during 2017, which "'ranked in the first percentile since 1930.'" Of the 56 lowest closing levels in the history of the VIX Index since 1990, 47 of them occurred in 2017.

77. As a result, the VIX Short-Term Futures Index, to which XIV was inversely benchmarked, also declined during 2017, and remained at historically low levels throughout the year.

78. The historically low market volatility meant that even a relatively modest increase in the absolute level of volatility would cause the VIX Short-Term Futures Index to increase significantly on a percentage basis. This, in turn, would cause a proportionally large decrease in the economic value of XIV.

79. At the same time, investments in volatility-linked ETPs and other financial instruments used to trade volatility dramatically increased. Hundreds of millions of dollars' worth of invested capital flowed into volatility-linked ETPs, as the number of ETPs tied to volatility increased to nearly 40 such products. Many of the ETPs were leveraged, with investment objectives that sought to achieve some multiple of the underlying volatility index (generally 2x). Like inverse ETPs such as XIV, leveraged ETPs require daily rebalancing. Credit Suisse alone

issued hundreds of millions of dollars' worth of such products, including not only XIV, but also the VelocityShares Daily 2x VIX Short-Term ETN (ticker symbol "TVIX") (the "TVIX").

80. XIV was Credit Suisse's largest volatility-linked ETP, and its market capitalization increased substantially. When Credit Suisse licensed XIV from VelocityShares in 2010, the product was modestly sized, with a mere $5 million market capitalization. XIV's market capitalization subsequently grew to $12 million by the end of 2010, $387 million by the end of 2011, $419 million by the end of 2012, $937 million by the end of 2014, $1 billion by the end of 2015, and $1.2 billion by the end of 2017.

81. Credit Suisse continued issuing more XIV notes and allowing the market cap to rise despite its knowledge that the next time VIX's volatility spiked, as it did every few years, Credit Suisse's hedging of its balance sheet would threaten the very existence of XIV. Unbeknownst to investors, however, Defendants took advantage of these issues to ensure they would profit at their investors' expense.

82. On June 30, 2017, Credit Suisse offered an additional 5,000,000 XIV notes on top of the 9,018,880 notes that were already issued and outstanding. Then, in connection with the 2018 Supplement, Credit Suisse offered an additional 16,275,000 notes on top of the 10,793,880 XIV notes then-outstanding. The issuance of the additional ETNs, combined with a continued fall in volatility, led to XIV's market capitalization increasing to approximately $1.9 billion by February 1, 2018, or 380x its size in 2010.

83. The market capitalizations of other major inverse and leveraged volatility-linked ETPs also soared to huge levels. As of February 2, 2018, the market capitalization of the ProShares Short VIX Short-Term Futures ETF (ticker symbol "SVXY") was $1.4 billion; that of the

ProShares Ultra VIX Short-Term Futures ETF (ticker symbol "UVXY") was $434 million; and that of Credit Suisse's TVIX was $350 million.

D. The Undisclosed Material Risk of a VIX Futures Liquidity Gap which Could Devastate XIV

84. In the 2018 Supplement, Credit Suisse informed investors in pertinent part that "***we and our affiliates have no reason to believe that our or their hedging activities will have a material impact on the level of the applicable underlying Index ….***"

85. This statement was repeated verbatim and without qualification from all the prior pricing supplements that Credit Suisse had issued with respect to XIV back to November 2010. As of November 2010, the volatility-linked ETP universe was so small that this statement was true. By at least January 29, 2018, however, the statement was materially misleading in light of the omission of what would transpire if volatility suddenly increased.

86. Indeed, given the considerable growth which had occurred in the market capitalizations of inverse and leveraged volatility-linked ETPs (including, primarily, XIV) by at least that date, as alleged above, there was a material risk that Credit Suisse's hedging activities—as well as those of other volatility-linked ETP issuers and other traders following similar strategies—would have a highly material impact on VIX futures in the event of any relatively small increase in volatility. The aggregate rebalancing requirements of all those products threatened to dwarf the VIX futures market.

87. Specifically, there was a risk that such a volatility increase would lead to a liquidity gap in VIX futures as Credit Suisse, its swap counterparties, and other providers of volatility-linked ETPs attempted to rebalance their respective hedges in an overcrowded market. The liquidity gap would cause a tremendous feedback loop of buying which would propel VIX futures skyward, causing XIV's value to plummet in a matter of minutes. Further, the risk of a liquidity

gap would be heightened during periods of low volatility because at such times—which happened to be the case as of January 29, 2018—even relatively small absolute increases in volatility would be significant on a percentage basis. Simply put, by at least January 29, 2018, there were not enough VIX futures contracts available from liquidity providers to absorb the demand of those instruments in such an event without a run on the market. A spike in volatility would cause a disproportionately large move in VIX futures as participants rushed to rebalance their hedges. XIV was thus, by January 29, 2018, a powder-keg primed to explode, and the question was not if it would blow up, but when. The 2018 Supplement, however, omitted to disclose those risks.

88. The 2018 Supplement also omitted to disclose that inverse volatility-linked ETPs such as XIV were particularly at risk of catastrophic losses in the event of a liquidity gap. Because of the exponential growth of XIV's AUM from 2010 to 2018 by approximately 380x leading up to January 29, 2018, even a small to moderate movement in the S&P would cause a rebalance so large that it risked triggering a feedback loop that would result in a catastrophic implosion of the value of XIV.

89. Exacerbating the risk of a liquidity gap, XIV was also subject to the risk of front-running by Credit Suisse and other industry participants—*i.e.*, banks, market-makers, specialist volatility trading firms, and hedge funds—which had access to proprietary market data, insider knowledge about the hedging methodologies used by Credit Suisse, and non-public modelling capabilities, all of which gave them visibility into the XIV's rebalancing needs based on market movements each trading day. Credit Suisse and its swap counterparties were able to calculate the size of XIV's rebalance and use this information to strategically and opportunistically trade ahead of and front-run XIV's rebalancing transactions daily, from which it is believed they derived

substantial profits. These activities increased the probability of a liquidity gap occurring as well as its severity once one did.

90. Furthermore, as alleged above, volatility-linked ETP providers, including Credit Suisse, rebalanced their portfolios at around the same time each day—between 4:00 p.m. and 4:15 p.m. ET. This meant that the Credit Suisse would generally be purchasing VIX futures to rebalance XIV at times when demand for those futures was highest.

91. By at least January 29, 2018, these undisclosed risks guaranteed XIV's demise, setting the stage for the XIV to suffer a self-destructive feedback loop or "death spiral": if volatility rose (causing XIV to decline), market participants including Credit Suisse would rush to buy VIX futures, thereby driving up their prices, which would cause XIV's value to decline further. The decline in XIV's value would necessitate that Credit Suisse purchase even more VIX futures—at higher prices—to complete its rebalancing. This would propel VIX futures up even more, driving XIV's value further down, and so on until XIV collapsed. Additionally, when such destructive "death spiral" ultimately developed, it would obliterate XIV's value in a matter of minutes.

92. Notably, while a potential feedback loop between the VIX futures market and the XIV theoretically could work in both directions and push the VIX Short-Term Futures Index down when Credit Suisse sold VIX futures—thereby driving the XIV up—large rebalance purchases tend to have a greater impact on the VIX Short-Term Futures Index than large rebalance sales. This is because implied market volatility is constrained on the downside at zero volatility, while no such constraint exists to the upside. As a result, it tends to take ever increasing selling activity to push the VIX Short-Term Futures Index toward zero, whereas there is no such constraint on its upward movement.

93. Additionally, Credit Suisse created an even more acute risk of a liquidity gap by using VIX futures to hedge its liabilities with respect to not one but two products—XIV and TVIX. This practice heightened the threat of massive rebalancing purchases which would cause an outsized impact on VIX futures prices.

94. Furthermore, by design, the complexity of the XIV concealed and magnified these risks, which were poorly understood even by sophisticated industry participants. Many (if not most) of the investors in the XIV were, like, Plaintiff, unprofessional investors who did not have access to non-public predictive models, sophisticated analytical tools, or the massive amounts of data (which included proprietary and non-public data) necessary to comprehend the true risks of the XIV or how it would perform in stress scenarios.

95. The 2018 Supplement omitted to disclose these factors. Had the pertinent risks been disclosed, no reasonable investor, including Plaintiff, would have purchased or held XIV after 4:00 p.m. ET on any day—and certainly on any day when volatility had increased appreciably.

96. Furthermore, prior to February 5, 2018, nothing about the prior trading history of XIV alerted Plaintiff or other public XIV investors to the undisclosed risk of a liquidity gap in the VIX futures.

E. Defendants Knew or Recklessly Disregarded that Volatility Spikes Led to Liquidity Issues

97. On at least three occasions during the life of XIV prior to February 5, 2018, the market experienced a spike in the VIX Index and an even larger spike in VIX futures prices due to the hedging activities described above. Over the course of these three VIX spikes, Defendants became acutely aware that, due to the limited size of the VIX futures market, the point was rapidly being reached where there simply would not be enough VIX futures contracts to enable Credit

Suisse and other VIX-related ETP issuers to rebalance their hedges without a disproportionate impact on VIX futures prices. In other words, there were "liquidity" issues in the VIX futures market during and after spikes in the VIX. These liquidity issues caused VIX futures prices to temporarily increase even more than what would be expected based on market volatility alone.

98. For example, between August 4, 2011 and August 8, 2011, there was a three-trading day spike in the VIX. On August 4, 2011, XIV opened at $14.83, and closed on August 8, 2011 at $10, a decline of 32.57%, with the XIVIV—the Intraday Indicative Value—dropping 38.42% at one point.

99. Between August 20, 2015 and August 24, 2015, there was another three-trading day spike in the VIX:

Index	Date	Open	High	Low	Close
VIX	August 20, 2015	16.55	19.24	16.13	19.14
VIX	August 21, 2015	22.55	28.38	20.80	28.03
VIX	August 24, 2015	28.03	53.29	28.03	40.74

100. Between June 9, 2016 and June 24, 2016, there was another spike in the VIX, though more gradual than the previous two spikes.

101. These three VIX spikes, however, occurred at much lower levels of AUM for the leveraged and inverse VIX-linked ETP universe. For example, at the time of the August 4 to August 8, 2011 spike, the aggregate AUM of the leveraged and inverse VIX-linked ETP universe, including XIV, was only $0.66 billion. Similarly, when the spike in the VIX transpired from August 20 to August 24, 2015, the aggregate AUM of the leveraged and inverse VIX-linked ETP universe, including XIV, was $1.93 billion. And when the VIX spiked between June 9 and June 24, 2016, the aggregate AUM of the leveraged and inverse VIX-linked ETP universe, including XIV, was $2.71 billion.

102. Credit Suisse observed the three prior VIX spikes and their impact on the VIX futures market. Credit Suisse also incorporated the data pertaining to the trading history of XIV and the VIX futures market—including, specifically, during those three prior VIX spikes—into its market-impact and rebalancing risk models, which Credit Suisse used to forecast likely risks and trading opportunities. Through such modeling and analysis, Credit Suisse predicted the impact on VIX futures prices—and the resulting value of XIV—of similar or greater spikes in the VIX, at higher levels of AUM for the leveraged and inverse volatility-linked ETP universe.

103. Credit Suisse thereby became acutely aware that, if the aggregate AUM of XIV and other leveraged and inverse volatility-linked ETPs continued to grow, the VIX futures market would soon reach a tipping point at which, the rebalancing requirements of Credit Suisse and other leveraged and inverse-ETP issuers would swamp the VIX futures market in the event of another VIX spike, triggering a massive liquidity gap that would propel the futures prices exponentially higher than previously experienced and obliterate the value XIV. Credit Suisse also knew that because XIV was an ETN and not an ETF, any profits from its hedging activity would be for the benefit of Credit Suisse itself and not the ETN holders. In other words, the three prior VIX spikes taught Credit Suisse that the VIX futures market was running out of headroom and that it was just a matter of time before another spike in volatility would allow Credit Suisse to aggressively and profitably hedge its exposure to XIV, while at the same time forcing XIV into a destructive death spiral.

104. For example, the VIX spike on August 24, 2015, caused volume in the first- and second-month VIX futures contracts to spike during afterhours trading to nearly one third of the entire first- and second-month VIX futures market. This, in turn, caused a spike in VIX futures prices that resulted in XIV at one point in afterhours trading dropping in value approximately

32.46% from its previous close. As explained below, the 2018 Supplement provided Credit Suisse the right to redeem shares pursuant to an "Acceleration Event" if XIV's Intraday Indicative Value fell 80% or more from the previous day's Closing Indicative Value. The August 24, 2015 afterhours decline in XIV's value was thus a significant risk event that was immediately escalated to Defendants Thiam and Mathers in accordance with Credit Suisse's risk protocols described below.

105. Similarly, on June 24, 2016, during another VIX spike, approximately 118,000 first- and second-month VIX futures contracts traded in the aftermarket, which represented nearly a quarter of the entire first- and second-month VIX futures market. Again, this huge volume caused a temporary spike in VIX futures prices, resulting in a temporary sharp drop in the XIV. From a close of $30.05 on June 23, 2016, XIV dropped as low as $20.79, or 30%, during afterhours trading on June 24. This risk event was immediately escalated to Defendants Thiam and Mathers in accordance with Credit Suisse's risk protocols described below.

106. By at least January 29, 2018, there was, in fact, ample reason to believe that Credit Suisse's rebalancing activities could have a material impact on level of the VIX futures—namely, that the tremendous growth in the aggregate AUM of the inverse and leveraged VIX-linked ETP universe, including XIV, which was, by then $3.18 billion, had created rebalancing requirements that, on volatile days, risked generating a catastrophic feedback loop of purchasing in the VIX futures market that would cause XIV's value to evaporate in a matter of minutes. Such AUM growth created a highly material risk of a liquidity gap that could destroy the value of XIV.

107. In addition, Credit Suisse knew the VIX was statistically certain to undergo a spike every few years. After the events of February 5, 2018, analysts with the Bank for International

Settlements noted "the historical tendency of volatility increases to be rather sharp" and that Credit Suisse was thus allowing XIV investors to effectively "collect[] pennies in front of a steamroller."

108. Also after February 5, 2018, Artur Sepp, a former analyst for Merrill Lynch and Bank of America, analyzed the probability of a one-day VIX futures spike of 80% occurring, which is the level at which an Acceleration Event occurs. Based on historical data, Sepp found that the probability of such a spike was about 0.37% at the high range, meaning such an event is expected to occur every year, or 0.18% at the low range, meaning such an event is expected to occur once

109. In other words, it was a statistical certainty that the VIX and VIX futures would spike. As explained below, Credit Suisse's risk management groups, including its most senior executives, ran similar volatility stress tests, and thus knew, or at the very least, recklessly disregarded, these statistical facts.

110. Nevertheless, the grave risk that Credit Suisse's hedging would destroy XIV by causing a liquidity gap was not disclosed in the 2018 Supplement, but was, instead, misleadingly disclaimed by the anodyne statement that Credit Suisse had "no reason to believe that our hedging activities will have a material impact on the level of the applicable underlying Index." In fact, the 2018 Supplement misleadingly omitted any indication whatsoever that the size of the leveraged and inverse ETP universe, including, primarily, XIV, was even a risk factor.

F. Credit Suisse Takes Steps to Protect Itself from the Risk of a VIX Futures Liquidity Gap

111. Perceiving the risk of and fearing a VIX futures liquidity gap, Credit Suisse took steps to protect itself against that risk. Credit Suisse needed to ensure that, each day, it would be able to obtain the correct number of VIX futures contracts to hedge entirely its ETN obligations, thereby avoiding ownership of an unhedged exposure to volatility which could threaten its own capital. A liquidity gap in the VIX futures market would jeopardize that ability.

112. Credit Suisse also needed to comply with regulatory requirements, including, *inter alia*, the position limits imposed by CFE Rule 412A. That Rule—which was promulgated to "reduce the potential risk of price distortions and market disruptions"[6]—requires large traders like Credit Suisse to provide notice to the CFE "prior to, or within one Business Day" of exceeding applicable position limits, which, for VIX futures, is 50,000 or more VIX futures contracts. *See* CFE Rule 1202(d). This limit is what is known as a "position accountability" rule for CBOE futures products. The CFE has authority to require traders that exceed position accountability levels to, *inter alia*, "[refrain from] further increase any positions that are above the applicable position accountability levels … reduce any positions that are above the applicable position accountability levels, or … [or] comply with any prospective levels or limits prescribed by the [CFE] which equal or exceed the applicable position accountability levels or the size of the positions controlled by the [trader]."

113. By at least July 1, 2016, Credit Suisse grew concerned that a VIX futures liquidity gap would threaten its capital or ability to comply with CFE Rule 412A. And for good reason. Analysis shows that, as of that date, given XIV's size, there was a 99.73% statistical probability that a rebalance requiring the purchase or sale of VIX futures exceeding the 50,000-contract CFE "position accountability level" would occur approximately every 300 trading days (about 14 months). This posed risks which were unacceptable to Credit Suisse.

114. Moreover, the CARMC was alerted that, during and after VIX spikes, the availability, *i.e.*, liquidity, of VIX futures was growing insufficient to hedge its growing position in XIV, exposing Credit Suisse to substantial risk. Credit Suisse's risk management protocols

[6] *See* Michael Mollet, *CBOE Futures Exchange, LLC Rule Certification Submission Number CFE-2013-32,* CBOE Futures Exchange (Sept. 20, 2012), http://cfe.cboe.com/publish/CFErulefilings/SR-CFE-2013-032.pdf.

dictated that the CARMC—and thus the Individual Defendants—would have determined Credit Suisse needed to give itself additional avenues to hedge XIV.

115. Therefore, on July 1, 2016, Credit Suisse issued a press release (the "2016 Announcement") stating that the issuance of additional XIV ETNs would be conditioned on the purchasers' "agreement to sell to Credit Suisse certain hedging instruments consistent with Credit Suisse's hedging strategy, including but not limited to swaps." Credit Suisse's press release stated in pertinent part:

> Credit Suisse announced today that it will place conditions on its acceptance of offers to purchase VelocityShares™ Daily Inverse VIX Short Term ETNs (Ticker Symbol: "XIV").
>
> Beginning on July 5, 2016, Credit Suisse may issue additional ETNs on a weekly basis and may condition its acceptance of a counterparty's offer ***to purchase the ETNs on its agreement to sell to Credit Suisse certain hedging instruments consistent with Credit Suisse's hedging strategy, including but not limited to swaps***. Any such hedging instruments will be executed on the basis of the indicative value of the ETNs at that time, will not reflect any premium or discount in the trading price of the ETNs over their indicative value and will be on terms acceptable to Credit Suisse, including the counterparty meeting Credit Suisse's creditworthiness requirements, margin requirements, minimum size and duration requirements and such other terms as Credit Suisse deems appropriate in its sole discretion. In addition, Credit Suisse may from time to time issue the ETNs into inventory of its affiliates.

116. This new policy enabled Credit Suisse to issue additional XIV ETNs, increasing its fee income, while hedging its exposure to those securities via swaps instead of through VIX futures trading.

117. Indeed, facilitated in part by the swap arrangements, Credit Suisse's fee income in connection with XIV vastly increased. The Daily Investor Fee collected by Credit Suisse jumped from $500 per day in 2010 to nearly $100,000 per day in February 2018.

118. Significantly, however, swaps do not eliminate risk but merely transfer it from one party to another. By requiring counterparties to sell Credit Suisse swaps consistent with Credit

Suisse's hedging strategy, Credit Suisse simply transferred its own risk and hedging needs to its swap counterparties. These swap counterparties were then compelled to purchased and sell the same VIX futures that CS would have—in the absence of the swaps—needed to purchase and sell itself. Thus, while Credit Suisse protected itself against the risk of a VIX futures liquidity gap, the liquidity-gap risks to which XIV investors were exposed continued to exist, and, in fact, dramatically increased due the expanding float and market capitalization of XIV.

119. As the July 2016 Announcement confirms, the three prior VIX spikes in 2011, 2015, and 2016, made apparent to Defendants that there were major problems associated with its end-of-day rebalancing of its XIV hedges. Specifically, during these VIX spikes Credit Suisse saw issues with the cost and availability of VIX futures during its end-of-day hedging process. Credit Suisse recognized the danger of illiquidity in the VIX futures market and identified alternative ways to protect itself—specifically, by conditioning the sale of new ETNs on the counterparty's agreement to sell to Credit Suisse additional hedging instruments.

120. Pursuant to Credit Suisse's risk protocols described below, these hedging issues raised by the three prior spikes in the VIX were escalated immediately to senior management, including the CARMC, which included the Individual Defendants, and were discussed by Credit Suisse's risk management groups, including the CARMC. As alleged in detail below, the CARMC, which consisted of Credit Suisse's most senior officers, including Defendants Thiam and Mathers, was responsible for actively monitoring risk at the highest level, recommending risk limits to the Board, and allocating risk limits among the Bank's different lines of business. Any breach of those limits resulted in "immediate notification" to Defendant Thiam.

121. Nevertheless, Credit Suisse continued to issue new XIV notes, despite knowing that it was already experiencing liquidity issues with VIX futures during the daily rebalancing period.

122. That Credit Suisse knew it had grown XIV too big for the size of the VIX futures market is further confirmed by Credit Suisse's own experience with other VIX-related products.

123. In 2012, Credit Suisse stopped issuing shares of VelocityShares Daily 2x VIX Short-Term ETNs ("TVIX") after massive demand caused TVIX values to surge and become dislocated from the values of the underlying VIX futures upon which TVIX was based. Though Credit Suisse cited "internal limits on the size of the [TVIX] ETN" as the reason for the halt, even as far back as 2012, at least one analyst noted that "[t]he potential issue is whether this is a symptom of the volatility-based exchange-traded products starting to outgrow the size of the VIX futures market."[7] Notably, Credit Suisse's "internal limits" did nothing to constrain the massive growth of XIV in the following years, because it planned to profit from this massive growth.

124. In addition, Credit Suisse knew the VIX was statistically certain to undergo a spike every few years. As alleged above, after the events of February 5, 2018, analysts with the Bank for International Settlements noted "the historical tendency of volatility increases to be rather sharp" and that Credit Suisse was thus allowing XIV investors to effectively "collect[] pennies in front of a steamroller."

125. Also after February 5, 2018, Artur Sepp, a former analyst for Merrill Lynch and Bank of America, analyzed the probability of a one-day VIX futures spike of 80% occurring, which is the level at which an Acceleration Event occurs. Based on historical data, Sepp found that the probability of such a spike was about 0.37% at the high range, meaning such an event is expected to occur every year, or 0.18% at the low range, meaning such an event is expected to occur once every other year.

[7] Angela Moon, Jessica Toonkel, *Analysis: Out of control? Volatility ETN triggers risk concern*, Reuters (Feb. 23, 2012, 6:06 PM), https://www.reuters.com/article/us-market-volatility-tvix/analysis-out-of-control-volatility-etntriggers-risk-concerns-idUSTRE81M2AO20120223.

126. In other words, it was a statistical certainty that Credit Suisse's hedging activity would cause the VIX and VIX futures to spike. As explained below, Credit Suisse's risk management groups, including its most senior executives, ran similar volatility stress tests, and thus knew, or at the very least recklessly disregarded, these statistical facts.

G. After an Extended Period of Low Volatility, Credit Suisse Issues Millions More XIV Notes on January 29, 2018, Making More Money while Planning to Profit from an Imminent VIX Spike

127. Despite knowing that there were significant liquidity issues in end-of-day hedging, and that it would be impossible for VIX-related ETP issuers to handle even a moderate volatility spike, the Credit Suisse Defendants continued to issue more XIV notes, exacerbating the impact of their hedging activities on the price of VIX futures, and contributing to XIV's ultimate destruction. Indeed, Credit Suisse continued to expand XIV by selling large amounts of XIV notes right up through January 29, 2018, when Credit Suisse offered an additional 16,275,000 XIV notes, knowing the expansion of XIV would further exacerbate future liquidity issues, and that it was a near certainty that hedging activities, including Credit Suisse's own, after even a modest VIX spike would destroy XIV.

128. By February 2018, volatility-linked ETPs reached approximately $4 billion in AUM. Of this amount, XIV alone accounted for approximately $1.9 billion. By this time, it had been over 1.5 years since the last major VIX spike, and Credit Suisse knew it was a statistical certainty another spike would occur at some point.

129. Credit Suisse wanted to continue to grow XIV because investors paid Credit Suisse upwards of $135 per note, allowing Credit Suisse to accrue billions. As explained above, Credit Suisse also knew that it was a statistical certainty that the VIX would spike sharply at some point, resulting in a liquidity squeeze in the VIX futures market during the end-of-day rebalancing period, to which Credit Suisse would contribute, and the inevitable collapse of XIV. This collapse would

allow Credit Suisse to pay back XIV note holders only pennies on the dollar while it pocketed the difference. It would also allow Credit Suisse to opportunistically trade ahead of the massive spike in VIX futures that it anticipated would occur in connection with the XIV collapse, reaping profits for itself.

130. Indeed, because Credit Suisse had grown XIV so much larger than the VIX futures upon which XIV's value was based, Credit Suisse knew it could easily, and relatively cheaply, buy VIX futures to cause XIV to collapse. Thus, Credit Suisse continued to grow and sell XIV to investors knowing it was selling them a ticking time bomb. Meanwhile, Credit Suisse knew for a fact that (i) a VIX spike was inevitable, (ii) based on previous VIX futures liquidity issues, Credit Suisse could cheaply and easily contribute to a major liquidity gap in VIX futures when the VIX spike happened, and (iii) it could announce an Acceleration Event allowing it to pay XIV investors pennies on the dollar while protecting itself from a public relations disaster by blaming the Acceleration Event on volatility. Credit Suisse also knew it could reap a windfall for itself by trading ahead of the massive spike in VIX futures that it anticipated would occur in connection with the XIV collapse.

H. Defendant Thiam's Restructuring Plan Provided Additional Incentive for Credit Suisse To Destroy XIV

131. The prospect of massive profits was not the only incentive for Credit Suisse to bet against its investors and cause XIV to collapse. The Bank was in the midst of a major three-year restructuring plan in which Credit Suisse announced it would slash risky assets in favor of the Bank's more stable wealth management division. This restructuring placed added pressure on the Bank to ensure it closed out XIV at the first opportunity.

132. On July 1, 2015, Defendant Thiam became Credit Suisse's CEO. Due to the Bank's historical challenges maintaining adequate capital, and the fact that it was about to face even

steeper capital requirements by regulators, analysts and investors expected Thiam to substantially scale back the investment bank, as they noted another bank, UBS, had already done years ago.

133. On Credit Suisse's third quarter October 21, 2015 earnings call, Thiam announced his new strategy for Credit Suisse to emphasize the Bank's more stable Private Banking & Wealth Management division while "right-sizing," or shrinking, the investment bank to "reduce earnings volatility." Thiam also announced that, in addition to these efforts, Credit Suisse would issue a private placement and rights offering in an effort to raise an additional CHF 6 billion ($6.1 billion) in much needed external capital from the Bank's investors.

134. Credit Suisse also announced on the October 21, 2015 call that, to ensure the shrinkage of the investment bank and of the Global Markets division in particular, the Bank had created an entirely separate unit—the "Strategic Resolution Unit," or "SRU"—that was devoted to downsizing prior management's risky investments that did not conform with the Bank's new strategy. The Bank's CFO, Defendant Mathers, described the SRU as a "stand-alone segment with its own governance structure and reporting obligations and clear accountability for its primary objectives," which were the "immediate right-sizing of the Global Markets division, as well as the other exposures that do not fall within the strategic goals of the business divisions." Mathers stated that the SRU would have a "direct reporting line" to him.

135. A Morningstar report, however, commented that Credit Suisse's cuts to the investment bank were less than hoped, which was discouraging in light of the investment bank's poor third quarter performance:

> We're disappointed that new CEO Tidjane Thiam is maintaining Credit Suisse's commitment to having a strong investment bank, as we'd thought UBS-style radical cuts were possible. The revised strategy, which will significantly cut macro businesses . . . will cut only about 20% of the investment bank's risk-weighted assets . . . Credit Suisse's performance in the third quarter was disappointing . . . Very bad performance from the investment bank was behind most of the drop—

> strategic pre-tax income in the unit fell to CHF 282 million from CHF 995 million in the year-ago quarter, as fixed income trading revenue declined significantly.

136. An October 21, 2015 Financial Times article also highlighted analysts' criticisms of Thiam's shrinkage of the investment bank by only 20%, stating "[i]t was a far cry from the speculation immediately after Tidjane Thiam's appointment in March as chief executive, when the bank's shares surged 8 percent on hopes of a big push into Asia, a big wealth management acquisition and drastic cuts to investment banking."

137. In the following years, as part of the restructuring, Credit Suisse cut thousands of jobs, sold off risky legacy assets, and raised more than 10 billion Swiss francs ($10.2 billion) from shareholders.

138. Pressure on the Bank continued, however, resulting in an October 2017 campaign by activist investor RBR Capital Advisors to break up Credit Suisse. On November 28, 2017, Defendant Thiam, speaking regarding his restructuring plan to reduce reliance on volatile trading in favor of wealth management, stated: "The shareholders have been through a lot. I'm painfully aware that I had to dilute my shareholders very significantly[. . . .] As we generate more profit and the bank does better," he said, "the goal of all this is to return capital to shareholders." He further stated that, to return capital to shareholders, "[e]verything is on the table[.]"

139. Thus, in addition to their motive to capitalize on volatility spikes at investors' expense, Credit Suisse faced intense pressure to profitably close XIV from two fronts: (1) pressure from Thiam and investors to drastically scale back Credit Suisse's investment bank; and (2) pressure to generate profit as soon as possible to quell brewing investor revolts.

I. Credit Suisse's Manipulative Scheme Succeeds and Steamrolls over XIV Investors

140. As alleged above, on January 29, 2018, Credit Suisse issued the 2018 Supplement repeating verbatim and without qualification the statement from earlier pricing supplements for

XIV that "***we and our affiliates have no reason to believe that our or their hedging activities will have a material impact on the level of the applicable underlying [VIX Short-Term Futures] Index ….***"

141. Barely a week after issuance of the 2018 Supplement, the risk of a liquidity gap in VIX futures suddenly began to materialize. Perceiving this development unfolding, Credit Suisse seized the opportunity presented and executed its long-awaited plan to close out XIV while pocketing millions at the expense of its investors. By driving up the price of the VIX futures contracts to which the value of XIV was inversely tied, Credit Suisse knew it could close out XIV by announcing an Acceleration Event while blaming the collapse on market volatility. Remaining holders of XIV notes, who had paid Credit Suisse as much as $135 per note during the Class Period, would receive pennies on the dollar while Credit Suisse reaped hundreds of millions in profit.

142. On Monday, February 5, 2018, the S&P 500 Index fell 4% amid concerns about rising bond yields and higher inflation. On a historical basis, the decline was unremarkable. Percentagewise, it was less than half the greatest single-day decline in the S&P 500 Index over the last 30 years (a 9% decline that occurred on October 15, 2008) and a fraction of the 20% decline in the S&P 500 Index that occurred on October 19, 1987. By the close of regular trading at 4:00 p.m. ET, the VIX Short-Term Futures Index had risen 33%, from a prior daily settlement value of 49.43 to 65.75. As expected, XIV's Indicative Value fell an equivalent 33%, from a prior daily close of $108.37 to $72.59 as of 4:00 p.m. ET on February 5, 2018. Trading was orderly and positions in the stock, equity options, and VIX futures markets remained liquid.

143. However, between 4:00 p.m. and 4:15 p.m. ET, Credit Suisse, its swap counterparties, and other providers of volatility-linked ETPs rushed to rebalance their hedges in

an overly crowded VIX futures market. As a result, as Credit Suisse anticipated, that market spiraled out of control. The prices of VIX futures rose, which in turn drove down XIV's value, resulting in a feedback loop which required the purchase of yet more VIX futures by Credit Suisse, its swap counterparties, and other providers of volatility-linked ETPs, causing XIV's value to decline further, and so forth.

144. Knowing of the previous liquidity issues and that other participants in the volatility-linked ETP market would be seeking to hedge their positions by buying VIX futures, Credit Suisse executed its plan to rid itself of XIV while making hundreds of millions of dollars at investors' expense and blaming the collapse on market forces. Credit Suisse bought up thousands of February and March VIX futures contracts, drastically reducing their supply, and as a result drastically driving up the price of the contracts. Between 4:00 p.m. and 4:15 p.m., February VIX futures prices went from $23.10 to $33.20, and March VIX futures prices went from $18.90 to $27.95, a spike of 43.72% and 47.88% respectively.

145. Credit Suisse's purchases amounted to roughly one-fourth of the entire VIX futures market, which drove up trading to more than 167 times the usual volume. Credit Suisse's hedging trades contributed to a liquidity squeeze that caused the prices of VIX futures contracts to skyrocket. That Credit Suisse was a primary mover of this spike is supported by its own admission the following day that it faced "no material impact" from XIV's plunge because, as the issuer of XIV, "we hedge the risk. We hedge XIV by trading VIX futures."

146. Between 4:00 p.m. and 4:15 p.m. ET on February 5, 2018, the prices of the VIX futures making up the VIX Short-Term Futures Index rocketed to $29.81—a total increase of 96% over the settlement price of the prior trading day, February 2, 2018. As a result, XIV's economic

value plummeted. Figure 1 below illustrates the dramatic rise in price of the VIX March futures contracts which formed part of the VIX Short-Term Volatility Index that day:

147. Rebalancing XIV on February 5, 2018 required the purchase of 104,700 VIX futures contracts—an amount equal to 41% of the total volume of contracts traded during the period 4:00 p.m. to 4:15 p.m. ET (which was 253,687 VIX futures). Notably, this quantity was multiples larger than the 50,000-contract "position accountability" level of CFE Rule 412A, which, as alleged above, was promulgated to "reduce the potential risk of price distortions and market disruptions."

148. By at least 4:10:15 p.m. ET on February 5, 2018, Credit Suisse's strategy was going as planned. By this time, Credit Suisse specifically knew that, due to its large purchases of February and March VIX futures contracts which drove up the price of those contracts, XIV's true economic value had dropped to approximately $20, which constituted more than an 80% drop in

value from the previous trading day's Closing Indicative Value, and thus, according to its own 2018 Supplement, an Acceleration Event had occurred.

149. By the time the "death spiral" concluded, XIV—which had opened at an Indicative Value of $103 that morning—was worth $4.22. In total that day, XIV investors lost over $1.56 billion—96% of XIV's total value.

150. Significantly, the collapse in XIV's value occurred after the equities market had closed its trading session, and was, therefore, largely if not completely unrelated to changes in equity market value or volatility, or any other market-wide phenomenon. Indeed, in afterhours trading from 4:00 p.m. to 4:15 p.m. ET on February 5, 2018, the VIX Index rose just 13%, from 32.98 to 37.32. Rather, the collapse in XIV's value during that time period was due to the undisclosed material risks inherent in the rebalancing requirements of XIV, given what was, by at least January 29, 2018, a VIX futures market that was insufficiently liquid to handle those requirements without a disproportionate impact on VIX futures prices.

151. Media commentators described the shocking and complete collapse of the XIV in suitably cataclysmic terms such as "Armageddon" and the "Volpocalypse." Others noted that investors had been "blindsided" as latent risks in XIV materialized.

152. On February 6, 2018, trading in XIV was temporarily halted by market regulators. That same day, as alleged in more detail below, Credit Suisse announced that the decline in XIV had triggered an "acceleration event" under the terms of the Registration Statement, allowing Credit Suisse to force redemption of the ETNs, as alleged in more detail below. The release stated that XIV ETNs would be valued as of the closing indicative value on February 15, 2018 and redeemed at this valuation on February 21, 2018. Investors would ultimately receive only $5.99 for each XIV ETN.

J. Defendants' Scheme Results in Hundreds of Millions of Dollars in Profits for Credit Suisse at the Expense of Investors

153. In Credit Suisse's Form 6-K announcing its fiscal results for the quarter ended March 31, 2018, Credit Suisse stated: "In 1Q18, equity sales and trading revenues of CHF 490 million increased 30% compared to 4Q17, due to more favorable trading conditions, particularly higher levels of volatility which benefited our derivatives business. ***We had substantially higher revenues across flow and structured equity derivatives driven by these more favorable market conditions***[.]"[8] This was quite a turnaround for the Bank, which had posted its third consecutive annual loss, and had just reported a 22% decline in the equities asset class the previous quarter.

154. Only after additional non-public information becomes available to Plaintiff can an accurate figure of Credit Suisse's profits be ascertained. However, based on public information available to Plaintiff, a very conservative estimate of Credit Suisse's profits from XIV is $475 million.

155. As of January 26, 2018, Credit Suisse had 10,793,880 XIV notes issued and outstanding. On January 29, 2018, Credit Suisse filed the January Supplement announcing that it would be offering up to 16.275 million additional XIV notes to investors. By February 2, 2018, Credit Suisse had increased the number of its XIV notes issued and outstanding to 14,993,880. Thus, not even including any shares that may have been redeemed in the interim, in just five trading days after the filing of the 2018 Supplement, Credit Suisse had increased the number of XIV notes issued and outstanding by at least 4.2 million notes, or over 38.9%. This, however, may not represent the full number of XIV notes that Credit Suisse sold after the filing of the 2018

[8] All emphasis is added unless otherwise noted.

Supplement, as it does not account for any XIV notes sold by Credit Suisse after February 2, 2018, including on February 5, 2018 when XIV trading volume soared.

156. As noted in the 2018 Supplement, Credit Suisse "expect[s] to receive proceeds equal to 100% of the issue price to the public of the ETNs we issue and sell after the Inception Date." Based on the low and high trading market prices for XIV notes from January 29, 2018 through February 2, 2018, inclusive, Credit Suisse received gross proceeds of approximately $500,388,000 to $567,210,000 on the 4.2 million XIV notes it sold during this timeframe. The XIV notes that Credit Suisse offered and sold during this time would ultimately serve as a windfall to Credit Suisse as it sold the XIV notes at significantly higher market prices than the $5.99 it ultimately paid upon their redemption. After accounting for the $5.99 per note redemption cost, Credit Suisse profited in the range of approximately $475 million to $542 million on just the 4.2 million XIV notes it sold in the days before the events of February 5, 2018.

157. Beyond the profits made on the 4.2 million XIV notes, Credit Suisse further benefited by extinguishing the long-term debt liabilities on its balance sheet it held prior to issuing notes through the 2018 Supplement for mere pennies on the dollar. Moreover, by extinguishing the long-term debt of the XIV notes, Credit Suisse was able to capture the difference beyond the price it received when it sold XIV notes to investors and the redemption value of $5.99 it ultimately paid.

K. Defendants Announce an Acceleration Event, Locking in Credit Suisse's Profits

158. On February 6, 2018, Credit Suisse issued a press release stating that XIV had experienced an Acceleration Event, and that Credit Suisse would be liquidating XIV:

> Since the intraday indicative value of XIV on February 5, 2018 was equal to or less than 20% of the prior day's closing indicative value, an acceleration event has occurred. Credit Suisse expects to deliver an irrevocable call notice with respect to the event acceleration of XIV to The Depository Trust Company by no later than

> February 15, 2018. The date of the delivery of the irrevocable call notice, which is expected to be February 15, 2018, will constitute the accelerated valuation date, subject to postponement due to certain events. The acceleration date for XIV is expected to be February 21, 2018, which is three business days after the accelerated valuation date. On the acceleration date, investors will receive a cash payment per ETN in an amount equal to the closing indicative value of XIV on the accelerated valuation date. The last day of trading for XIV is expected to be February 20, 2018. As of the date hereof, Credit Suisse will no longer issue new units of XIV ETNs. On February 2, 2018, the closing indicative value was USD 108.3681. None of the other ETNs offered by Credit Suisse are affected by this announcement.

159. That same day, Credit Suisse stated it faced "no material impact" from XIV's collapse. Credit Suisse spokesperson Nicole Sharp told CNBC by email: "We are the issuer of the [XIV] ETN and, having issued it, we hedge the risk. We hedge XIV by trading VIX futures …. The positions constitute part of a portfolio."

160. Pursuant to the announcement of the Acceleration Event, on February 20, 2018, XIV ceased trading. On the following day, XIV was terminated and redeemed at $5.99 per note.

L. Facing Investor Outrage and Government Investigations, Defendants Actively Attempt to Conceal their Manipulative Scheme

161. The events of February 5, 2018 shocked the market, with reporters and investors questioning Credit Suisse as to how XIV could have collapsed so quickly and dramatically, causing nearly $2 billion in investor losses.

162. Further, nearly immediately after XIV's collapse, the SEC began investigating Credit Suisse. Specifically, according to The Wall Street Journal, the SEC was "examining the market mayhem, calling Credit Suisse . . . and questioning the bank about [XIV] … Regulatory officials asked about how the investment's performance is calculated and whether retail investors were shareholders[.]"[9]

[9] Asjylyn Loder, Dave Michaels, *Market Volatility Strikes Exchange-Traded Products, Alarming Investors and Regulators*, The Wall Street Journal (Feb. 12, 2018, 8:00 AM),

163. Then, on February 14, 2018, Bloomberg published an article noting that it was clear that XIV investors "didn't understand that they weren't buying a gun but a live grenade. . . ."[10]

164. Credit Suisse's response was telling. Defendant Thiam stated: "Really it's a matter for regulators whether they need to stop retail investors from investing in [products like XIV]."[11] In other words, Credit Suisse knew it was selling a dangerous product that was structured and used in a manner at odds with Credit Suisse's characterizations, but saw no problem in profiting at investors' expense.

165. But Defendants were not only callous in the face of devastated investors, they also actively attempted to conceal the fraud through a series of evasive explanations. On February 14, 2018, Defendant Thiam was interviewed by Bloomberg and stated that, with respect to XIV, the decision to announce an Acceleration Event "was actually to protect investors. Because the product stopped trading, it was quasi-impossible to price, and we needed to give certainty to the market at the market open. So before the morning—and this—we went through a long process, we don't make these decisions lightly, there are people involved from every aspect of the business, from compliance to the front office—and they collectively—I don't make those types of decisions—they collectively reached a decision which was in the interest of investors, which was

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https://www.wsj.com/articles/market-volatility-strikes-exchange-traded-products-alarminginvestors-and-regulators-1518440400?mod=searchresults&page=1&pos=1.

[10] Stephen Gandel, *Banks Can't Sell Grenades Without Some Blowback,* Bloomberg (Feb. 14, 2018, 2:35 PM), https://www.bloomberg.com/news/articles/2018-02-14/banks-like-credit-suisse-can-t-sellgrenades-without-blowback.

[11] Weizhen Tan, Akiko Fujita, and Bernie Lo, *It is 'hard to understand' why investors are suing Credit Suisse over volatility product says its CEO,* CNBC (Mar. 19, 2018), https://www.cnbc.com/2018/03/19/credit-suisse-vix-etn-lawsuits-tidjane-thiam-says-bank-not-at-fault.html.

to close it. But there are quite a few products like that in the market, because they serve a useful purpose. They allow market participants to manage their risk better."[12]

166. These assertions, too, were patently false, further supporting Thiam was actively concealing that the real reason to announce an Acceleration Event was for Credit Suisse to profit at its investors' expense. XIV had not "stopped trading." To the contrary, investors bought approximately $700 million in XIV notes during aftermarket trading on February 5, 2018. Nor was XIV "quasi-impossible to price." Credit Suisse did not offer any explanation for the freeze in updating XIVIV on February 5, 2018. To the extent the freeze occurred because XIV became "quasi-impossible to price," this was due to Credit Suisse's own actions. In any event, the XIVIV began to update again beginning at 5:09:05 p.m., so Thiam's claim that Credit Suisse closed XIV on February 6 because it was "quasi-impossible to price" for an hour on February 5 simply makes no sense.

167. Finally, in view of Credit Suisse's hundreds of millions of dollars in profit and investors' $1.8 billion loss, the decision to close XIV was clearly not "in the interest of investors," rather it was in Credit Suisse's interest to announce the Acceleration Event to lock in the lowest possible redemption value on XIV notes. Had Credit Suisse acted in the "interests of investors," it could have alerted them of an Acceleration Event as early as 4:09 p.m. on February 5, halted trading at that time, halted trading as soon as it knew at approximately 4:10 p.m. that XIVIV was failing to properly update in real time, or notified investors that XIVIV was inaccurate. The deceptive nature of Defendant Thiam's *post hoc* explanations supports his concealment of the fraud.

[12] Bloomberg *supra* note 4.

168. During the same February 14, 2018 Bloomberg interview, Thiam, alluding to his three-year restructuring plan, stated that "there will be further cost cuts in the business this year…."[13]

169. On March 23, 2018, Defendant Thiam was awarded 9.7 million Swiss francs ($10.2 million) in compensation for 2017, "as his strategic shift toward managing money for wealthy clients showed signs of paying off …."[14]

170. On April 25, 2018, Thiam gave another interview to Bloomberg. He described his three-year restructuring plan as: "this is the part we love and we want to grow" and "this is the part we don't want . . . and we said we will get rid of it, and that's almost done."[15]

M. The Undisclosed Inaccuracy of the Intraday Indicative Value after 4:00 P.M. ET

171. Aside from the threat of a liquidity gap in VIX futures, the 2018 Supplement omitted to disclose an additional material risk relating to XIV—namely, that the Intraday Indicative Value disseminated by XIV's Calculation Agents was not properly updated and was therefore inaccurate from 4:00 p.m. to at least 6:00 p.m. ET each trading day. This, despite the fact that the VIX futures market was open for trading—and that real-time VIX futures prices were therefore available—for all but 15 minutes of that time period.[16]

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[13] *Id.*

[14] Brian Blackstone, *Credit Suisse CEO Tidjane Thiam Awarded $10 Million as Strategic Shift Starts to Pay Off,* Wall Street Journal (Mar. 23, 2018, 6:04 AM), https://www.wsj.com/articles/credit-suisse-ceo-tidjane-thiam-was-paid-10-2-million-in-2017-1521790615.

[15] Bloomberg *supra* note 4.

[16] The regular trading session for VIX futures ends at 4:15 p.m. ET. After a 15-minute break, the VIX futures market reopens at 4:30 p.m. ET for Extended Hours trading, which is the start of the next business day for VIX futures transactions.

172. As alleged above, XIV's economic value was determined through a formula based on the daily inverse performance of the VIX Short-Term Futures Index. XIV's Calculation Agents calculated and disseminated that value in the form of XIV's Indicative Value under the ticker symbol XIVIV.

173. The level of the Indicative Value was highly material to VIX investors. Dissemination of the Indicative Value was intended to allow investors to determine whether XIV was trading at a premium or discount to its economic value. Upon maturity, redemption, or acceleration of the ETNs, Credit Suisse was obligated to pay investors based on the Indicative Value.

174. The Registration Statement informed investors that the Indicative Value was "designed to approximate the economic value of [XIV] at a given time" and that such value was based upon S&P's VIX Short-Term Futures Index, which it stated "is calculated in real time . . . applying real time prices of the relevant VIX futures contracts." Furthermore, the 2018 Supplement stated that the Intraday Indicative Value "will be calculated every 15 seconds on each Index Business Day ….." In relevant part, the 2018 Supplement states that:

> ***The "Intraday Indicative Value" for each series of ETNs is designed to approximate the economic value of such series of ETNs at a given time***. It is calculated using the same formula as the Closing Indicative Value, except that instead of using the closing level of the applicable underlying Index, the calculation is based on the most recent intraday level of such Index at the particular time. ***The Intraday Indicative Value of the ETNs will be calculated every 15 seconds on each Index Business Day during the period when a Market Disruption Event has not occurred or is not continuing and disseminated over the Consolidated Tape, or other major market data vendor***.

175. The Registration Statement also contained important stipulations relating to the Intraday Indicative Value. It provided that "[i]f the Intraday Indicative Value is equal to or less than zero at any time … the Closing Indicative Value on that day, and all future days, will be zero

and you will lose all of your investment in [XIV]." The Registration Statement also stated that Credit Suisse had the right to "effect an Event Acceleration"—*i.e.*, to compel investors to redeem their ETNs—if the Indicative Value dropped 80% or more in a day. If Credit Suisse exercised this right, investors would be paid based on the Indicative Value.

176. Credit Suisse knew that the Intraday Indicative Value was material to, and relied on, by investors. It stated in the 2018 Supplement, for example, the following:

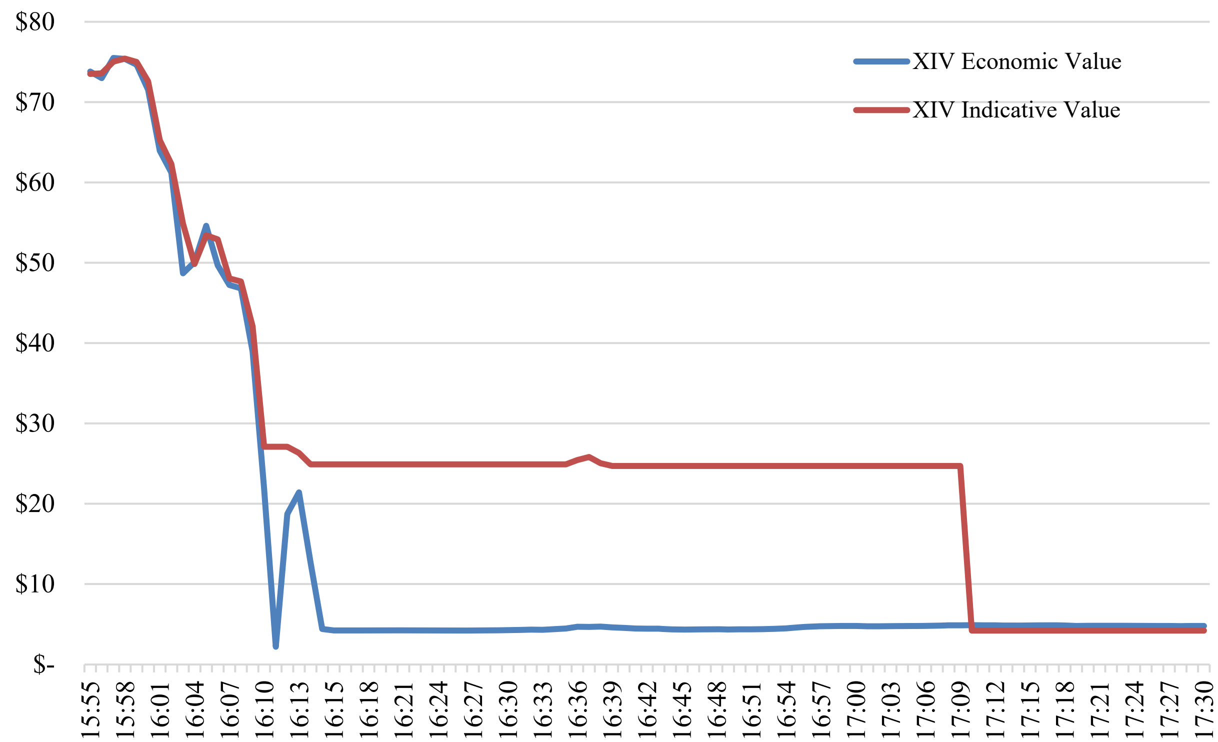
> Investors can compare the trading price of the ETNs (if such concurrent price is available) against the Intraday Indicative Value ***to determine whether the ETNs are trading in the secondary market at a premium or a discount to the economic value of the ETNs at any given time***.

177. The Intraday Indicative Value was published by NASDAQ under the ticker, XIVIV.

178. Nevertheless, unbeknownst to investors, including Plaintiff, S&P, which published the VIX Short-Term Futures Index (which was used by the Calculation Agents to compute the Indicative Value), inexplicably did not properly update that index from 4:00 p.m. to at least 6:00 p.m. ET on any trading day for at least the four years prior to February 5, 2018. Instead, S&P published stale and/or inaccurate values during those time periods. As a result, the Indicative Value was therefore also generally stale and/or inaccurate at those times.

179. This fact is confirmed through analysis comparing the Indicative Value (as disseminated by the Calculation Agents) on February 5, 2018 versus XIV's economic value (as derived from the prices of the VIX futures contracts underlying the VIX Short-Term Futures Index), as depicted in Figure 2 below.

Figure 2
XIV Economic Value v. XIV Indicative Value



180. This is further confirmed by an email exchange between Plaintiff and S&P dated April 4-5, 2018. In the exchange, S&P admitted to Plaintiff that the VIX Short-Term Futures Index values regularly were not properly updated after 4:00 p.m. ET. S&P informed Plaintiff that it would correct this error in its data feed by the next business day and that the VIX Short-Term Futures Index would begin tracking movements in VIX futures after 4:00 p.m. ET.

181. Prior to February 5, 2018, the inaccuracy of the Indicative Value from 4:00 p.m. to at least 6:00 p.m. ET was immaterial given that volatility generally was stable after 4:00 p.m. ET, when the regular trading session for stocks closed.

182. However, on February 5, 2018, unbeknownst to investors in XIV, the Indicative Value was overstated materially, obscuring XIV's instability. VIX futures prices skyrocketed, yet because of the failure of the S&P data feed for the VIX Short-Term Futures Index to properly update, those price changes did not show up in the Indicative Value. Instead, the Indicative Value remained relatively constant at around $25 for 55 minutes, as XIV's economic value plummeted.

183. Indeed, the Indicative Value was overstated by nearly 500% during this time period.

184. Notably, by at least 4:10:15 p.m. ET, XIV's economic value had fallen more than 80%, entitling Credit Suisse to "effect an Event Acceleration." Furthermore, at 4:11:00 p.m. ET, XIV's economic value temporarily fell below zero, meaning that Credit Suisse was entitled to mark the Indicative Value at zero "on that day, and all future days ….." Yet, investors had no reason to suppose that these critical thresholds had been breached. Indeed, at those times, the Indicative Value printed at $27.09. This represented a daily decline of only 77%, which was short of the 80% threshold required for Credit Suisse to declare an "Event Acceleration."

185. At 5:09 p.m. ET, the Indicative Value finally updated at $4.22, stunning investors. XIV's market trading price swiftly declined.

186. Given the inaccuracy of the Indicative Value, investors like Plaintiff, which traded XIV after 4:00 p.m. ET on February 5, 2018, had no way of knowing that the prices of VIX futures had skyrocketed after the close of the regular trading session of the stock market, triggering a "death spiral" feedback loop which was wiping out XIV's economic value.

187. Further, given Credit Suisse's omission to disclose in the offering documents or otherwise that the Indicative Values were not properly updated from 4:00 p.m. to at least 6:00 p.m. ET each day and were therefore stale and/or inaccurate, investors like Plaintiff trading XIV in the afterhours had no reason to check on the prices of the VIX futures, from which they potentially

could have deduced on February 5, 2018, that the economic value of XIV had collapsed and/or was in the midst of a collapse and/or had collapsed.

N. Credit Suisse Omits to Issue a NASDAQ Listing Rule 5250(b)(1) Disclosure

188. In addition to the omissions in the 2018 Supplement, Plaintiff complains of another material non-disclosure by Credit Suisse. Specifically, NASDAQ Listing Rule 5250(b)(1) provides that issuers listed on the Nasdaq "shall make prompt disclosure to the public … of any material information that would reasonably be expected to affect the value of its securities or influence investors' decisions." Violating this disclosure obligation, Credit Suisse omitted to issue a disclosure at any time on February 5, 2018 warning investors of the catastrophic events which lay immediately ahead and/or which were in the midst of transpiring and/or which had transpired with respect to XIV.

189. At minimum, the confluence of factors that existed on the afternoon of February 5, 2018 "would reasonably be expected to affect the value" of XIV and "influence investors' decisions." Given the considerable market capitalizations of XIV and other volatility-linked ETPs by February 5, 2018, and the activity in the stock market that day, including the spike in volatility (from historically low levels), there was a material risk that a liquidity gap in the VIX futures could develop, propelling VIX futures prices skyward and obliterating XIV's value.

190. Further, as alleged above, Credit Suisse monitored its ETN obligations and rebalancing requirements, including specifically those for XIV, in real time both to protect its own capital and to comply with CFE position limits and other regulatory requirements. To do so, Credit Suisse tracked the real-time prices of the VIX futures contracts used to compute the VIX Short-Term Futures Index (to which XIV was inversely benchmarked), rather than relying on the Index values disseminated by S&P. Indeed, given the massive liabilities at stake and the potential for impairment to the firm's capital, Credit Suisse needed to monitor its XIV obligations and

rebalancing requirements on at least a millisecond basis, while the VIX Short-Term Futures Index was updated only every 15 seconds (a relative eternity)—and was not properly updated at all after 4:00 p.m. ET. As a large financial institution, Credit Suisse would not have relied on a third-party for such vital information when that information was accessible in real-time from an original source as the VIX futures prices were.

191. Based on its real-time monitoring of its ETN obligations and rebalancing requirements, analysis indicates that Credit Suisse knew or recklessly disregarded that by 3:50 p.m. ET on February 5, 2018, its XIV's daily rebalancing would require the purchase of in excess of 50,000 VIX futures—an amount exceeding the "position accountability level" of CFE Rule 412A, which, as alleged above, was established to "reduce the potential risk of price distortions and market disruptions." Notably, Rule 412A requires large traders like Credit Suisse to notify the CFE if they exceed or expect to exceed position accountability levels. It is believed that Credit Suisse provided the requisite Rule 412A notice to the CFE—or, at minimum, concluded that such a notice was required—by at least 3:50 p.m. ET on February 5, 2018, given what Credit Suisse would have known about XIV's rebalancing requirements by that time on that day. Yet, Credit Suisse omitted to issue any notice to the general public about this material development.

192. The situation grew increasingly dire as the afternoon progressed. Based on its real-time monitoring of its ETN obligations and rebalancing requirements, analysis indicates that Credit Suisse knew or recklessly disregarded that: (i) XIV's daily rebalancing requirements had jumped from at least 50,000 VIX futures contracts by 3:50 p.m. ET to more than 59,000 VIX futures contracts by 4:00 p.m. ET; (ii) a liquidity gap had, in fact, materialized in the VIX futures market—causing XIV's value to decline by more than 80% and entitling Credit Suisse to "effect an Event Acceleration"—by at least 4:10:15 p.m. ET; (iii) XIV's economic value temporarily fell below

zero—meaning that Credit Suisse was entitled to mark the Indicative Value at zero "on that day, and all future days …."—at 4:11:00 p.m. ET; and (iv) XIV's economic value was just $4.22 at 4:15 p.m. ET.

193. Indeed, Credit Suisse certainly knew that XIV's economic value was just $4.22 by 4:15 p.m. ET on February 5, 2018, because it needed to determine the likely daily settlement prices of the VIX futures contracts that make up the VIX Short-Term Futures Index in order precisely to determine its rebalancing requirements for the day. Credit Suisse thus would have seen that those VIX futures prices had risen by 96.1% from the prior daily settlement, which meant that XIV had fallen by the same percentage and was worth just $4.22.

194. All these developments "would reasonably be expected to affect the value" of XIV and "influence investors' decisions." Thus, under Listing Rule 5250(b)(1), Credit Suisse owed a duty to "make prompt disclosure to the public" of them. At no time on the afternoon of February 5, 2018, however, did Credit Suisse issue any public disclosure as it was required to do. Instead, Credit Suisse remained silent, as investors, including Plaintiff, continued to purchase a security that was imploding.

195. Notably, IM-5250-1 makes clear that Listing Rule 5250(b)(1) was specifically designed to alert the public to emergent news or developments requiring immediate disclosure, including, for example, defaults, tender offers, bankruptcy filings, cancellations of material contracts or orders, resignations or terminations of key personnel, and the like. For this reason, the Nasdaq MarketWatch department requires that issuers give it only 10 minutes prior notice before issuing a Listing Rule 5250(b)(1) disclosure. The disaster impending and/or materializing and/or which had materialized for XIV investors on the afternoon of February 5, 2018, was precisely the sort of development for which that Listing Rule 5250(b)(1) was intended.

196. Moreover, it is apparent that Credit Suisse was able to, and did, predict in advance what would happen to VIX futures after 4:00 p.m. ET on February 5, 2018, and was cognizant of those events as they unfolded. This can be inferred from the fact that, *inter alia*, Credit Suisse profited handsomely from its own proprietary trading that day. As alleged above, on April 25, 2018, Credit Suisse reported that it had generated approximately $490 million in revenues for its equity sales and trading division for the fiscal quarter ended March 31, 2018, a 30% increase compared to the previous quarter, stating that the positive results were "due to more favorable trading conditions, particularly higher levels of volatility which benefited our derivatives business." It is believed that a substantial portion of those increased revenues stemmed from opportunistic trading (*i.e.*, front-running) by Credit Suisse ahead of XIV's rebalancing on February 5, 2018, which was the only day that fiscal quarter which had "particularly higher levels of volatility …." Indeed, on May 23, 2018, CNBC reported that Goldman Sachs—which is believed to have been a leading XIV swap counterparty to Credit Suisse—made $200 million in profits trading volatility on February 5, 2018 alone, an amount "on par with what the firm's derivatives unit typically makes in an entire year."

197. It is thus clear that Credit Suisse was not caught flat-footed or unawares by the liquidity gap in VIX futures after 4:00 p.m. ET on February 5, 2018. Instead, it anticipated what would happen with a high degree of clarity and positioned its proprietary trades accordingly, generating enormous profits. Yet Credit Suisse omitted to issue a disclosure alerting investors to the imminent calamity about to unfold and/or which was in the process of unfolding and/or which had unfolded with respect to XIV at any time on February 5, 2018.

198. Had Credit Suisse issued a Listing Rule 5250(b)(1) disclosure on the afternoon of February 5, 2018, investors like Plaintiff contemplating XIV trades would have been forewarned

of the catastrophic events which lay immediately ahead and/or which were in the midst of transpiring and/or which had just occurred. No reasonable investor, including Plaintiff, would have purchased or held XIV near or after 4:00 p.m. ET on February 5, 2018, had Credit Suisse issued such a notice as it was obligated to do.

199. Nevertheless, as a result of Credit Suisse's omission to issue a Rule 5250(b)(1) disclosure, investors, including Plaintiff, believing—correctly—that stock market volatility would recede after the modest spike which had occurred during the regular trading session of the stock market that day, purchased more than $700 million in XIV ETNs after 4 p.m. ET. Indeed, Plaintiff continued to purchase XIV ETNs as late as 5:38 p.m. ET. Due to the risks which Credit Suisse omitted to disclose at any time through February 5, 2018, including Defendants' manipulative scheme as alleged herein, however, the value of those investments was virtually wiped out.

O. Plaintiff's XIV Transactions and Losses

200. On February 5, 2018, Plaintiff purchased 900,000 XIV ETNs at prices between $22.21 and $95.38, at a cost of $43,034,153.87, between 3:50 p.m. and 5:38 p.m. ET. This included 600,000 XIV ETNs that Plaintiff purchased between 4:00 p.m. and 5:09 p.m. ET that day, *i.e.*, while the Indicative value was inaccurate. Plaintiff made its purchases as part of an investment strategy to reflect its view that the volatility that the stock market had experienced that day would be short-lived and would diminish the following day. Plaintiff was 100% correct in this view. The VIX Index fell 19.7% from a close of 37.32 on February 5, 2018, to a close of 22.42 on February 6, 2018.

201. Nevertheless, Plaintiff did not profit, but instead suffered tens of millions of dollars in losses, from its XIV investments, as a result of the material undisclosed risks and the manipulative scheme complained of herein. Specifically, Plaintiff sold or was compelled to

redeem its XIV ETNs (at a redemption price of only $5.99) for an aggregate of only $5,298,043.91. Plaintiff therefore lost approximately $37.7 million from its XIV investments.

V. DEFENDANTS' OMISSIONS

202. As alleged above, the offering documents for XIV consisted of a registration statement on Form F-3 filed with the SEC on June 8, 2017, which was subsequently amended, including by means of a prospectus supplement for the offer and sale of XIV ETNs filed with the SEC on January 29, 2018, on Form 424B2 (previously defined as the "2018 Supplement"), which was incorporated into and formed part of the registration statement (previously defined as the "Registration Statement") (collectively, previously defined as the "Offering Documents"). The Registration Statement was signed by, among others, the Individual Defendants.

203. The Offering Documents omitted material facts, including material facts necessary in order to make the statements made, in the light of the circumstances under which they are made, not misleading. They misled investors by repeatedly warning of "risks" that Defendants knew were certain to occur. Among other things, the Offering Documents misrepresented Credit Suisse's knowledge of the impact of its hedging activity and failed to disclose Credit Suisse's plan to increase the volume of XIV notes in the market before seizing on any spike in volatility to trigger an Acceleration Event.

204. To be sure, the Offering Documents warned investors of extensive risks related to the purchase of XIV notes. They urged that the notes were intended for "sophisticated investors to manage daily trading risks" and advised purchasers that, should they hold the notes long term, "it is likely that [they] will lose all or a substantial portion of [their] investment." They also prominently disclosed Credit Suisse's intention to hedge its exposure to sales of XIV notes.

205. However, with respect to the impact of that hedging, the Offering Documents provided a more equivocal advisory. They stated that, while "there can be no assurance that the

level of the [VIX Futures] Index will not be affected," Defendants "have no reason to believe that [their] . . . hedging activities will have a material impact on the level of the [VIX Futures] Index."

206. As alleged above, Credit Suisse issued millions of additional XIV notes without disclosing its intent to capitalize on this dynamic and trigger an Acceleration Event. The Offering Documents thus misrepresented Credit Suisse's knowledge and intent when they warned that Credit Suisse's hedging activity "could" or "may" impact prices of XIV notes but affirmed that Credit Suisse had "no reason to believe" that it would. While these warnings could have possibly sufficed when Credit Suisse first issued XIV Notes, these warnings remained unchanged for nearly a decade despite the three episodes of market volatility, which put to rest any uncertainty as to the price-impact of Credit Suisse's hedging, and the tremendous increase in the AUM of XIV and other volatility-linked ETPs, which exacerbated the risk of a serious liquidity gap developing in the VIX futures market.

207. Likewise, the Offering Documents omitted the material facts when they stated that Credit Suisse's hedging trades "may present" a conflict of interest. In fact, unbeknownst to Plaintiff and other investors, Credit Suisse had already structured the market for XIV notes to ensure that the next volatility spike would allow it to profit at its own investors' expense.

208. Specifically, the 2018 Supplement warned investors of "**Long Holding Period Risk**," stating in pertinent part:

> The ETNs … are intended to be trading tools for sophisticated investors to manage ***daily trading risks***. ***They are designed to achieve their stated investment objectives on a daily basis***, but their performance over longer periods of time can differ significantly from their stated daily objectives. The ETNs are riskier than securities that have intermediate or long-term investment objectives, and may not be suitable for investors who plan to hold them for ***longer than one day***. Investors should actively and frequently monitor their investments in the ETNs, ***even intra-day***.

209. The 2018 Supplement additionally warned investors that "**The long term expected value of your ETNs is zero.** If you hold your ETNs as a long term investment, it is likely that you will lose all or a substantial portion of your investment."

210. The 2018 Supplement went on to describe XIV as an appropriate vehicle for short-term investment objectives, stating in pertinent part:

The ETNs may be a suitable investment for you if ….

- You are a sophisticated investor seeking to manage ***daily trading risk using a short-term investment***, and are knowledgeable and understand the potential consequences of investing in volatility indices and of seeking inverse or leveraged investment results, as applicable.

- You believe the level of the applicable underlying Index will increase … or decline (if you invest in the Inverse ETNs) by an amount, and at a time or times, sufficient to offset the sum of the Daily Investor Fees (and in the case of Early Redemption, the Early Redemption Charge) over your intended holding period of the ETNs and to provide you with a satisfactory return on your investment ***during the time you hold the ETNs***.

***

- You are a sophisticated investor using the ETNs ***to manage daily trading risks*** and you understand that the ETNs are designed to achieve their stated investment objectives ***on a daily basis, but their performance over longer periods of time can differ significantly from their stated daily objectives***.

211. The statements from the 2018 Supplement in ¶¶ 208-10 above omitted to state material facts, including material facts necessary in order to make the statements made, in the light of the circumstances under which they are made, not misleading, for at least the following reasons: (i) by at least January 29, 2018, XIV was inappropriate for even daily or short-term—and not just "long-term"—trading, as it was subject to a high likelihood of catastrophic losses in a matter of minutes and faced the threat of collapse if there was any relatively small increase in volatility, as alleged above in ¶¶ 5-7, 84-130; and (ii) thus, even investors like Plaintiff which did not plan to hold XIV for longer than one day and who monitored their portfolios regularly risked loss of a

"substantial portion of your investment" because the short-term—and not just the "long term"——expected value of XIV was also "zero" on any day where volatility increased appreciably, as alleged above in ¶¶ 5-7, 84-130. The 2018 Supplement misleadingly omitted to disclose these material facts.

212. The statements from the 2018 Supplement in ¶¶ 208-10 above also omitted to state material facts, including material facts necessary in order to make the statements made, in the light of the circumstances under which they are made, not misleading, because, at the time the foregoing statements were made, Defendants knew that during the next VIX spike—which Defendants knew was certain to occur—Credit Suisse planned to profit from its hedging and trading activity in the underlying futures and other instruments by creating a liquidity squeeze in the VIX futures market that would inflate the value of VIX futures, thereby wiping out the value of XIV and triggering an Acceleration Event. At the time the foregoing statements were made, Defendants had designed the product to fail during the next VIX spike by continuing to issue additional XIV notes despite knowing that such growth would exacerbate liquidity issues in the VIX futures market known to Defendants, and that Defendants would profit from the resulting collapse of XIV by pocketing the difference in the purchase price of the XIV notes and the redemption value after the Credit Suisse Defendants announced an Acceleration Event as well as from Credit Suisse's own opportunistic trading. Defendants omitted to disclose these facts.

213. The 2018 Supplement also stated:

> ***There may be conflicts of interest between you, us***, the Redemption Agent, and the Calculation Agents . . . As noted above, we, our affiliates, or third parties with whom we transact, including JHD, may engage in trading activities related to the applicable underlying Index, the VIX Index, the S&P 500® Index, the component securities of the S&P 500® Index, or the underlying futures or listed or over-the-counter options, futures contracts, swaps, or other instruments linked to the applicable underlying Index, certain exchange traded notes issued by Credit Suisse, the VIX Index, the S&P 500® Index, the component securities of the S&P 500®

> Index, or the underlying futures. ***These trading activities may present a conflict between your interest in your ETNs*** and the interests we, our affiliates, or third parties with whom we transact, including JHD, will have in our or their proprietary accounts, in facilitating transactions, including block trades, for our or their customers and in accounts under our or their management. ***These trading activities, if they influence the level of the applicable underlying Index, could be adverse to your interests as a beneficial owner of your ETNs.***

214. The bold and italicized statements in paragraph 213 were false and misleading and omitted material facts concerning the conflict between XIV investors' interests and those of Credit Suisse. At the time the foregoing statements were made, Defendants knew with certainty that their trading activities in VIX futures presented a conflict of interest in XIV that was adverse to the interests of XIV's investors, because Defendants knew: (i) that during the next VIX spike—which Defendants knew was certain to occur—Defendants planned to profit from their hedging and trading activity in the underlying futures and other instruments by creating a liquidity squeeze in the VIX futures market that would inflate the value of VIX futures, thereby wiping out the value of XIV and triggering an Acceleration Event; and (ii) Defendants had designed the product to fail during the next VIX spike by continuing to issue additional XIV notes despite knowing that such growth would exacerbate known liquidity issues in the VIX futures market, and that Defendants would profit from the resulting collapse of XIV by pocketing the difference in the purchase price of the XIV notes and the redemption value after the Credit Suisse Defendants announced an Acceleration Event as well as by its own opportunistic trading.

215. The 2018 Supplement also stated in pertinent part:

> SUPPLEMENTAL USE OF PROCEEDS AND HEDGING
>
> We intend to use the net proceeds from this offering for our general corporate purposes, which may include the refinancing of our existing indebtedness outside Switzerland. We may also use some or all of the net proceeds from this offering to hedge our obligations under the ETNs of the applicable series. One or more of our affiliates before and following the issuance of the ETNs of any series may acquire or dispose of the futures contracts underlying the applicable Index, or listed or over-

> the-counter options contracts in, or other derivatives or synthetic instruments related to, the applicable underlying Index or the S&P 500® Index or the VIX Index to hedge our obligations under the ETNs of such series. In the course of pursuing such a hedging strategy, the price at which such positions may be acquired or disposed of may be a factor in determining the levels of the applicable underlying Index. Although ***we and our affiliates have no reason to believe that our or their hedging activities will have a material impact on the level of the applicable underlying Index***, there can be no assurance that the level of the applicable underlying Index will not be affected.

216. The statements from the 2018 Supplement set forth in the foregoing paragraph omitted to state material facts, including material facts necessary in order to make the statements made, in the light of the circumstances under which they are made, not misleading, for at least the following reasons: (i) by at least January 29, 2018, XIV was subject to a high likelihood of catastrophic losses in a matter of minutes and faced the threat of collapse if there was any relatively small increase in stock market volatility, as alleged above in ¶¶ 5-7, 84-130; and (ii) given the considerable growth which had occurred in the market capitalizations of inverse and leveraged volatility-linked ETPs (including, primarily, XIV) by January 29, 2018, there was a material risk that Credit Suisse's hedging activities—as well as those of other volatility-linked ETP issuers and other traders—would have a highly material impact on VIX futures (and, thus, on the VIX Short-Term Futures Index) in the event of any relatively small increase in volatility, as alleged above in ¶¶ 5-7, 84-130. The 2018 Supplement misleadingly omitted to disclose these material facts.

217. The statements from the 2018 Supplement in ¶ 215 above also omitted to state material facts, including material facts necessary in order to make the statements made, in light of the circumstances under which they are made, not misleading, because, at the time the foregoing statements were made, Defendants knew that during the next VIX spike—which Defendants knew was certain to occur—Credit Suisse planned to profit from its hedging and trading activity in the underlying futures and other instruments by creating a liquidity squeeze in the VIX futures market

that would inflate the value of VIX futures, thereby wiping out the value of XIV and triggering an Acceleration Event. At the time the foregoing statements were made, Defendants had designed the product to fail during the next VIX spike by continuing to issue additional XIV notes despite knowing that such growth would exacerbate liquidity issues in the VIX futures market known to Defendants, and that Defendants would profit from the resulting collapse of XIV by pocketing the difference in the purchase price of the XIV notes and the redemption value after the Credit Suisse Defendants announced an Acceleration Event as well as from Credit Suisse's own opportunistic trading. Defendants misleadingly omitted to disclose these facts.

218. The 2018 Supplement also stated in relevant part:

> We expect to hedge our obligations under the ETNs through one or more of our affiliates. ***This hedging activity will likely involve purchases or sales of*** … ***swaps*** … related to the VIX Index (including the VIX futures contracts which are used to calculate the Indices), the S&P 500® Index (including the put and call options used to calculate the level of the VIX Index) and the equity securities underlying the S&P 500® Index.

219. The 2018 Supplement also stated:

> We expect to hedge our obligations relating to the ETNs by purchasing or selling short the underlying futures, listed or over-the-counter options, futures contracts, swaps, or other derivative instruments relating to the applicable underlying Index, the VIX Index, the S&P 500® Index, the component securities of the S&P 500® Index, or the underlying futures, or other instruments linked to the applicable underlying Index, certain exchange traded notes issued by Credit Suisse, the VIX Index, the S&P 500® Index, the component securities of the S&P 500® Index, or the underlying futures, and adjust the hedge by, among other things, purchasing or selling any of the foregoing, at any time and from time to time, and to unwind the hedge by selling any of the foregoing, perhaps on or before the applicable Valuation Date. We, our affiliates, or third parties with whom we transact, may also enter into, adjust and unwind hedging transactions relating to other securities whose returns are linked to the applicable underlying Index. Any of these hedging activities may adversely affect the level of the applicable underlying Index — directly or indirectly by affecting the price of the underlying futures or listed or over-the-counter options, futures contracts, swaps, or other derivative instruments relating to the applicable underlying Index, the VIX Index, the S&P 500® Index, the component securities of the S&P 500® Index, or the underlying futures — and therefore the market value of your ETNs and the amount we will pay on your ETNs on the relevant Early Redemption Date, Acceleration Date or the Maturity Date. It

> is possible that we, our affiliates, or third parties with whom we transact could receive substantial returns with respect to these hedging activities while the value of your ETNs decline or become zero. Any profit in connection with such hedging activities will be in addition to any other compensation that and our affiliates receive for the sale of the ETNs, which may create an additional incentive to sell the ETNs to you.
>
> We, our affiliates, or third parties with whom we transact may also engage in trading in the underlying futures, or listed or over-the-counter options, futures contracts, swaps, or other derivative instruments relating to the applicable underlying Index, the VIX Index, the S&P 500® Index, the component securities of the S&P 500® Index, or the underlying futures, or instruments whose returns are linked to the applicable underlying Index, certain exchange traded notes issued by Credit Suisse, or the underlying futures or listed or over-the-counter options, futures contracts, swaps, or other derivative instruments relating to the applicable underlying Index, the VIX Index, the S&P 500® Index, the component securities of the S&P 500® Index, or the underlying futures for our or their proprietary accounts, for other accounts under our or their management or to facilitate transactions, including block transactions, on behalf of customers. Any of these activities could adversely affect the level of the applicable underlying Index — directly or indirectly by affecting the price of the underlying futures or listed or over-the-counter options, futures contracts, swaps, or other derivative instruments relating to the applicable underlying Index, the VIX Index, the S&P 500® Index, the component securities of the S&P 500® Index, or the underlying futures — and, therefore, the market value of your ETNs and the amount we will pay on your ETNs on the relevant Early Redemption Date, Acceleration Date or the Maturity Date. We may also issue, and we, our affiliates, or third parties with whom we transact may also issue or underwrite, other ETNs or financial or derivative instruments with returns linked to changes in the level of the applicable underlying Index or the underlying futures or listed or over-the-counter options, futures contracts, swaps, or other derivative instruments relating to the applicable underlying Index, the VIX Index, the S&P 500® Index, the component securities of the S&P 500® Index, or the underlying futures. By introducing competing products into the marketplace in this manner, we, our affiliates, or third parties with whom we transact could adversely affect the market value of your ETNs and the amount we will pay on your ETNs on the relevant Early Redemption Date, Acceleration Date or the Maturity Date.

220. The statements from the 2018 Supplement set forth in ¶¶ 218-19 omitted to state material facts, including material facts necessary in order to make the statements made, in the light of the circumstances under which they are made, not misleading, for at least the following reasons: (i) Credit Suisse hedged using swaps to reduce its exposure to the risk of a VIX futures liquidity

gap, and thereby to protect its own capital, which would otherwise be at risk, and to comply with the "position accountability" levels of CFE Rule 412A, which "was promulgated to "reduce the potential risk of price distortions and market disruptions," as alleged above in ¶¶ 13, 39, 112-13, 147, 191; and (ii) Credit Suisse's use of swaps to hedge its exposure and thereby issue additional XIV ETNs, combined with the hedging activities of other volatility-linked ETP issuers, increased the risks of a VIX futures liquidity gap to which XIV investors were exposed, as alleged above in ¶¶ 84-130. The 2018 Supplement misleadingly omitted to disclose these material facts.

221. The statements from the 2018 Supplement in ¶¶ 218-19 above also omitted to state material facts, including material facts necessary in order to make the statements made, in the light of the circumstances under which they are made, not misleading, because, at the time the foregoing statements were made, Defendants knew that during the next VIX spike—which Defendants knew was certain to occur—Credit Suisse planned to profit from its hedging and trading activity in the underlying futures and other instruments by creating a liquidity squeeze in the VIX futures market that would inflate the value of VIX futures, thereby wiping out the value of XIV and triggering an Acceleration Event. At the time the foregoing statements were made, Defendants had designed the product to fail during the next VIX spike by continuing to issue additional XIV notes despite knowing that such growth would exacerbate liquidity issues in the VIX futures market known to Defendants, and that Defendants would profit from the resulting collapse of XIV by pocketing the difference in the purchase price of the XIV notes and the redemption value after the Credit Suisse Defendants announced an Acceleration Event as well as from Credit Suisse's own opportunistic trading. Defendants misleadingly omitted to disclose these facts.

222. The January Supplement further states:

> Daily rebalancing of the Indices may impact trading in the underlying futures contracts

> The daily rebalancing of the futures contracts underlying the Indices may cause the Issuer, our affiliates, or third parties with whom we transact to adjust their hedges accordingly. ***The trading activity associated with these hedging transactions will contribute to the trading volume of the underlying futures contracts and may adversely affect the market price of such underlying futures contracts and in turn the level of the applicable underlying Index.***

223. The January Supplement additionally stated:

> Daily rebalancing of the leverage amount may impact trading in the underlying futures contracts
>
> The daily rebalancing of the leverage amount of each ETN back to its target may cause us, our affiliates, or third parties with whom we transact to adjust their hedges accordingly. ***The trading activity associated with these hedging transactions will contribute to the trading volume of the underlying futures and may adversely affect the market price of such underlying futures***.

224. The foregoing statements in ¶¶ 222-23 were false and misleading and omitted material facts concerning the known effect of Credit Suisse's hedging transactions during the next volatility spike. At the time the foregoing statements were made, Defendants knew that during the next VIX spike—which Defendants knew was certain to occur—Defendants planned to hedge their significant exposure in XIV notes, resulting in a liquidity squeeze in the VIX futures market. Defendants also knew that this liquidity squeeze would consequently increase the value of the SPVXSP, resulting in significant losses to investors by not only wiping out the value of the XIV notes, but by also causing an Acceleration Event. Furthermore, at the time the foregoing statements were made, Defendants knew or recklessly disregarded that XIV would fail during the next VIX spike and that their continued issuance of additional XIV notes would contribute to XIV's failure by exacerbating liquidity issues in the VIX futures. By failing to disclose to investors the certainty of these events upon the next volatility spike, these statements were rendered false and/or materially misleading.

225. The 2018 Supplement additionally stated in relevant part:

Intraday Indicative Value

The "**Intraday Indicative Value**" for each series of ETNs is ***designed to reflect the economic value of such series of ETNs at a given time***. It is calculated using the same formula as the Closing Indicative Value, except that instead of using the closing level of the applicable underlying Index, the calculation is based on the most recent intraday level of such Index at the particular time. ***The Intraday Indicative Value of each series of ETNs will be calculated every 15 seconds on each Index Business Day*** during the period when a Market Disruption Event has not occurred or is not continuing and disseminated over the Consolidated Tape, or other major market data vendor, and will be published under the applicable Indicative Value ticker for such series of ETNs, as set forth on the cover of this pricing supplement. **If the Intraday Indicative Value is equal to or less than zero at any time or the Closing Indicative Value is equal to zero on any Index Business Day, the Closing Indicative Value on that day, and all future days, will be zero.**

226. The 2018 Supplement also stated:

The "Intraday Indicative Value" for each series of ETNs is designed to approximate the economic value of such series of ETNs at a given time. It is calculated using the same formula as the Closing Indicative Value, except that instead of using the closing level of the applicable underlying Index, the calculation is based on the most recent intraday level of such Index at the particular time. The Intraday Indicative Value of the ETNs will be calculated every 15 seconds on each Index Business Day[17] during the period when a Market Disruption Event has not occurred or is not continuing and disseminated over the Consolidated Tape, or other major market data vendor. If the Intraday Indicative Value is equal to or less than zero at any time or the Closing Indicative Value is equal to zero on any Index Business Day, the Closing Indicative Value on that day, and all future days, will be zero. See "Description of the ETNs—Intraday Indicative Value" in this pricing supplement. JIC or its affiliate is responsible for computing and disseminating the Intraday Indicative Value.

The Intraday Indicative Value is a calculated value and is not the same as the trading price of the ETNs and is not a price at which you can buy or sell the ETNs in the secondary market. The Intraday Indicative Value does not take into account the factors that influence the trading price of the ETNs, such as imbalances of supply and demand, lack of liquidity and credit considerations. **The actual trading price of the ETNs in the secondary market may vary significantly from their Intraday Indicative Value.**

[17] An "Index Business Day" is defined as "a day on which (i) trading is generally conducted on the CBOE, (ii) the applicable underlying Index is published by S&P and (iii) trading is generally conducted on [the New York Stock Exchange]."

> ***Investors can compare the trading price of the ETNs (if such concurrent price is available) against the Intraday Indicative Value to determine whether the ETNs are trading in the secondary market at a premium or a discount to the economic value of the ETNs at any given time***. Investors are cautioned that paying a premium purchase price over the Intraday Indicative Value at any time could lead to the loss of any premium in the event the investor sells the ETNs when the premium is no longer present in the marketplace or when the ETNs are accelerated (including at our option, which we have the discretion to do at any time). It is also possible that the ETNs will trade in the secondary market at a discount below the Intraday Indicative Value and that investors would receive less than the Intraday Indicative Value if they had to sell their ETNs in the market at such time.

227. The 2018 Supplement stated with respect to the VIX Short-Term Futures Index:

> The level of each Index is calculated in accordance with the method described below. The value of each Index ***will be published by Bloomberg in real time*** and after the close of trading on each Index Business Day ….
>
> ***The intraday level of each of the Indices is calculated in real time by S&P on each S&P 500 VIX Futures Business Day using the same methodology as for calculation of the closing level but applying real time prices of the relevant VIX futures contracts***.

228. The statements from the 2018 Supplement set forth in ¶¶ 225-27 above omitted to state material facts, including material facts necessary in order to make the statements made, in the light of the circumstances under which they are made, not misleading, for at least the following reasons: (i) XIV's Indicative Value generally was not properly updated and was therefore inaccurate from 4:00 p.m. to at least 6:00 p.m. ET each trading day, despite that the VIX futures market was open for trading—and that real-time VIX futures prices were therefore available—for all but 15 minutes of that time period, as alleged above in ¶¶ 27-36, 171-87; (ii) this was because S&P, which published the VIX Short-Term Futures Index (which the Calculation Agents used to compute the Indicative Value), did not properly update that index from 4:00 p.m. to at least 6:00 p.m. ET daily, but, instead, published stale and/or inaccurate values, as alleged above in ¶¶ 27-36, 171-87; and (iii) as a result, for such daily time period, the VIX Short-Term Futures Index was not based on "real time prices of the relevant VIX futures contracts" and the Indicative Value was not

useful for "comparing against" the market prices of XIV "to determine whether the ETNs are trading in the secondary market at a premium or a discount to the economic value of the ETNs at any given time", as alleged in ¶¶ 27-36. 171-87. The 2018 Supplement misleadingly omitted to disclose these material facts.

229. The statements from the 2018 Supplement in ¶¶ 225-27 above also omitted to state material facts, including material facts necessary in order to make the statements made, in the light of the circumstances under which they are made, not misleading, because, at the time the foregoing statements were made, Defendants knew that during the next VIX spike—which Defendants knew was certain to occur—Credit Suisse planned to profit from its hedging and trading activity in the underlying futures and other instruments by creating a liquidity squeeze in the VIX futures market that would inflate the value of VIX futures, thereby wiping out the value of XIV and triggering an Acceleration Event. At the time the foregoing statements were made, Defendants had designed the product to fail during the next VIX spike by continuing to issue additional XIV notes despite knowing that such growth would exacerbate liquidity issues in the VIX futures market known to Defendants, and that Defendants would profit from the resulting collapse of XIV by pocketing the difference in the purchase price of the XIV notes and the redemption value after the Credit Suisse Defendants announced an Acceleration Event as well as from Credit Suisse's own opportunistic trading. Defendants misleadingly omitted to disclose these facts.

230. The 2018 Supplement additionally provided numerous "hypothetical examples" to "show how the ETNs would perform in hypothetical circumstances" and "illustrate the effect that different factors may have on the Maturity Redemption Amount." The 2018 Supplement provided four hypothetical scenarios, each of which reinforced the misleading impression that the XIV was subject to risks within the range of ordinary trading risks. The hypotheticals showed annualized

XIV returns as high as 124.44%, while the worst-case scenario illustrated a loss of 85.84% annualized over the course of one year. These examples were materially misleading because nowhere did the 2018 Supplement disclose that the XIV could lose almost the entirety of its value in a matter of minutes for the reasons alleged above in ¶¶ 5-7, 84-130.

231. Moreover, Item 303 of SEC Regulation S-K, 17 C.F.R. §229.303(a)(3)(ii) ("Item 303"), requires issuers to "[d]escribe any known trends or uncertainties that have had or that the registrant reasonably expects will have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations." Similarly, Item 503 of SEC Regulation S-K, 17 C.F.R. §229.503(c) ("Item 503"), requires, in the "Risk Factors" section of registration statements and prospectuses, "a discussion of the most significant factors that make the offering speculative or risky" and requires each risk factor to "adequately describe[] the risk." The failure of the 2018 Supplement to disclose any of the adverse facts alleged above in ¶¶ 5-7, 84-131, which raised material risks for investors in XIV, violated 17 C.F.R. §229.303(a)(3)(ii), because these undisclosed risks were knowable and known to Credit Suisse and would (and did) have an unfavorable impact on the XIV's continuing operations. This failure also violated 17 C.F.R. §229.503(c), because these specific risks were not adequately disclosed, or disclosed at all, even though they were some of the most significant factors that, as of at least January 29, 2018, made an investment in XIV so speculative or risky in afterhours trading that no reasonable investor would have purchased or held XIV at those times.

232. In addition to the omissions in the 2018 Supplement, Plaintiff complains of another material non-disclosure by Credit Suisse. Specifically, NASDAQ Listing Rule 5250(b)(1) provides that issuers listed on the Nasdaq "shall make prompt disclosure to the public … of any material information that would reasonably be expected to affect the value of its securities or

influence investors' decisions." Violating that Rule, Credit Suisse omitted to issue a disclosure at any time on February 5, 2018 warning investors of the catastrophic events which lay immediately ahead and/or which were in the midst of transpiring and/or which had transpired with respect to XIV, as alleged in ¶¶ 36-37, 43, 188-99.

VI. ADDITIONAL SCIENTER ALLEGATIONS

A. Credit Suisse's Active Involvement in the VIX Futures Market

233. The circumstances give rise to a strong inference that, at all relevant times, and at least by January 29, 2018, Credit Suisse knew about or recklessly disregarded the risk of a liquidity-gap in VIX futures which could devastate XIV. As alleged above, Credit Suisse had unique insider visibility into the VIX futures market as the issuer of some of the largest volatility-linked ETPs then available—not just XIV but also the TVIX (2x long VIX short-term) and the TVIZ (2x long VIX medium-term). Credit Suisse was also a major participant in the volatility markets as a market-maker and a trader for its own account. As Credit Suisse admitted in the 2018 Supplement, "[w]e expect to hedge our obligations relating to the ETNs by purchasing or selling short the underlying futures … and adjust the hedge by, among other things, purchasing or selling any of the foregoing, at any time and from time to time, and to unwind the hedge by selling any of the foregoing." Credit Suisse also admitted in the 2018 Supplement that "[w]e, our affiliates, or third parties with whom we transact may also engage in trading in the underlying futures … for our or their proprietary accounts, for other accounts under our or their management or to facilitate transactions, including block transactions, on behalf of customers." It also admitted that its hedging activities in VIX futures would be so pervasive that they could "adversely affect the level of the applicable underlying Index—directly or indirectly by affecting the price of the underlying futures."

234. As a large, sophisticated trader in the VIX futures market, Credit Suisse was intimately familiar with, tracked, analyzed, and modeled, *inter alia*, the volume and open interest in the VIX futures market, the slippage encountered by traders therein, and other factors that would affect that market's liquidity and Credit Suisse's ability to hedge and trade. Simply put, Credit Suisse therefore well knew that, given the given the considerable growth which had occurred in the market capitalizations of XIV and other volatility-linked ETPs by that time, there were not enough VIX futures contracts available from liquidity providers to absorb their rebalancing requirements in the event of even any relatively small increase in the volatility without a run on the market. Indeed, this fact was common knowledge among industry professionals involved in the volatility markets by at least January 29, 2018.

235. Credit Suisse also closely monitored its rebalancing requirements and ETN obligations, including specifically those for XIV, in real time both to protect its own capital and to comply with regulatory requirements. Credit Suisse needed to ensure that, each day, it would be able to obtain the correct number of VIX futures to hedge entirely its exposure to the ETNs. Otherwise, Credit Suisse would be left owning an unauthorized unhedged exposure to volatility through those obligations, threatening its own firm's capital.

236. Credit Suisse also had to comply with, and to monitor its compliance with, *inter alia*, CFE Rule 412A, which requires large traders like Credit Suisse to notify the CFE if they hold or expect to hold 50,000 or more VIX futures contracts. Notably, as alleged above, this 50,000-contract "position accountability level" was set by the CFE to "reduce the potential risk of price distortions and market disruptions."

237. Moreover, in calculating and monitoring its XIV obligations and rebalancing requirements, Credit Suisse tracked the real-time prices of the VIX futures contracts that were used

to compute the VIX Short-Term Futures Index (to which XIV was inversely benchmarked), rather than relying on the Index values disseminated by S&P. Indeed, given the massive liabilities at stake and the potential for impairment to the firm's capital, Credit Suisse would have monitored its XIV obligations and rebalancing requirements on at least a millisecond basis and not relied on the VIX Short-Term Futures Index, which was updated only every 15 seconds (a relative eternity) and not properly updated at all after 4:00 p.m. ET. Furthermore, as a large financial institution, Credit Suisse would not have relied on a third-party for vital information when that information was accessible in real-time from an original source as the VIX futures prices were.

238. Furthermore, fearing a liquidity gap, Credit Suisse took steps to protect itself against that risk. Specifically, on July 1, 2016, Credit Suisse began conditioning the issuance of additional XIV ETNs on the purchasers' "agreement to sell to Credit Suisse certain hedging instruments consistent with Credit Suisse's hedging strategy, including but not limited to swaps."

239. Credit Suisse adopted this policy because, by July 1, 2016, it knew that there was a 99.73% statistical probability that XIV's rebalancing requirements would require the purchase or sale of VIX futures contracts exceeding the 50,000-contract CFE "position accountability level" approximately every 300 trading days. This posed an unacceptable risk to Credit Suisse. The swap policy enabled Credit Suisse to issue additional ETNs while hedging its exposure to those securities via swaps instead of through trading VIX futures.

240. As alleged above, however, as a sophisticated institutional trader, Credit Suisse well knew that swaps do not eliminate risk but merely transfer it from one party to another. Credit Suisse thus knew or recklessly disregarded that it transferred the same risks that it had to its swap counterparties, and that those swap counterparties therefore were required to purchase and sell VIX futures in order to hedge their exposures on the swaps just as Credit Suisse would have had

to purchase and sell VIX futures to hedge its exposure on the relevant XIV ETNs absent the swaps. Thus, while Credit Suisse protected itself against the risk of a VIX futures liquidity gap, Credit Suisse knew or recklessly disregarded that the liquidity-gap risks to which XIV investors were exposed continued to exist, and, in fact, dramatically increased due the expanding float and market capitalization of XIV.

241. Moreover, it is apparent that Credit Suisse was able to, and did, predict in advance what would happen to VIX futures after 4:00 p.m. ET on February 5, 2018. This can be inferred from the fact that, *inter alia*, Credit Suisse profited handsomely from its own proprietary trading that day. As alleged above, on April 25, 2018, Credit Suisse reported that it had generated approximately $490 million in revenues for its equity sales and trading division for the fiscal quarter ended March 31, 2018, a 30% increase compared to the previous quarter, stating that the positive results were "due to more favorable trading conditions, particularly higher levels of volatility which benefited our derivatives business." This represented a major turnaround for Credit Suisse's equity sales and trading division, which had posted a 19% decrease in revenues for fiscal 2017. It is believed that a substantial portion of the increased revenues for Credit Suisse's fiscal quarter ended March 31, 2018, stemmed from strategic opportunistic trading (*i.e.*, front-running) by Credit Suisse ahead of XIV's rebalancing on February 5, 2018, which was the only day that fiscal quarter which had "particularly higher levels of volatility …." Indeed, on May 23, 2018, CNBC reported that Goldman Sachs—which is believed to have been a leading XIV swap counterparty to Credit Suisse—made $200 million in profits trading volatility on February 5, 2018 alone, an amount "on par with what the firm's derivatives unit typically makes in an entire year."

242. Thus, it is apparent that Credit Suisse was not caught flat-footed or unawares by the VIX futures liquidity gap that occurred after 4:00 p.m. ET on February 5, 2018. Instead, Credit

Suisse anticipated that event with a high degree of clarity and positioned its proprietary trades accordingly, generating enormous profits.

243. Additionally, the circumstances give rise to a strong inference that Credit Suisse knew or recklessly disregarded ***on*** February 5, 2018 that a VIX futures liquidity gap lay immediately ahead and/or was in the midst of transpiring and/or had transpired that very day.

244. Given the considerable market capitalizations of XIV and other volatility-linked ETPs by February 5, 2018, and the activity in the stock market that day, including a spike in the VIX Index (from historically low levels), Credit Suisse knew that there was a material risk that a VIX futures liquidity gap could develop, propelling VIX futures prices skyward and obliterating XIV's value. Credit Suisse also actively traded VIX futures that day, and, hence, had first-hand visibility into the liquidity gap as it developed and engulfed the VIX futures market. As set forth above, Credit Suisse made enormous profits for its own account on February 5, 2018 front-running those developments.

245. Further, given that Credit Suisse closely monitored its rebalancing requirements and ETN obligations in real time order to protect its capital and comply with regulatory requirements, it knew or recklessly disregarded that, as of 3:50 p.m. ET on February 5, 2018, XIV's rebalancing required the purchase of in excess of 50,000 VIX futures—an amount exceeding the "position accountability level" of CFE Rule 412A, which was established to "reduce the potential risk of price distortions and market disruptions"—triggering an obligation on the part of Credit Suisse to notify the CFE. In fact, it is believed that Credit Suisse provided the requisite Rule 412A notice to the CFE—or, at minimum, concluded that such a notice was required—by at least 3:50 p.m. ET on February 5, 2018, given what it would have known about XIV's rebalancing

requirements by that time on that day. Yet, Credit Suisse omitted to issue any notice to the general public.

246. By virtue of Credit Suisse's real-time monitoring of its rebalancing requirements and ETN obligations and active involvement in the VIX futures market, as alleged above, Credit Suisse also knew or recklessly disregarded by 4:00 p.m. ET on February 5, 2018, that XIV's daily rebalancing requirements had jumped to 59,000 VIX futures contracts. It also knew or recklessly disregarded that by at least 4:10:125 p.m. ET, XIV's economic value had fallen more than 80%, entitling Credit Suisse to "effect an Event Acceleration", and that, at 4:11:00 p.m. ET, XIV's economic value temporarily fell below zero, meaning that Credit Suisse was entitled to mark the Indicative Value at zero "on that day, and all future days ….."

B. Market Professionals and Insiders—Including those at Credit Suisse--Perceive the Undisclosed Risk

247. A strong inference that Credit Suisse knew about or recklessly disregarded the risk of a material liquidity-gap in VIX futures which could devastate XIV is also raised by the fact that such risk clearly was perceived, recognized, and warned of by market professionals and insiders.

248. For example, on January 11, 2018—less than two weeks before Credit Suisse issued the 2018 Supplement claiming it had "no reason to believe that our hedging activities will have a material impact on the level of the applicable underlying Index"—Goldman Sachs derivatives research analyst Rocky Fishman issued a report warning that the very risk that the 2018 Supplement suggested was immaterial was, in fact, "outsized" and "severe," and advising the firm's clients how to profit from it.

249. The massive growth in such ETPs, including, specifically the XIV, was "***worrisome***," the Fishman report explained, because it had created a heightened risk of an "***outsized increase in volatility should the SPX sell off sharply***" and ***"[t]he potential for inverse***

ETP rebalancing to contribute to a severe volatility spike." The report thus advised that "***Rebalancing impact of short and levered VIX ETPs remains the top tradable VIX ETP theme***." As the report stated:

> The size of inverse and levered ETPs in the aggregate is important … and the growth of inverse VIX ETP products is worrisome. Though small in the context of the broader US equity market (VIX ETPs have around $5bln total AUM). ETPs are large in the context of the VIX derivatives market. The XIV and SVXY short products alone represent over 40% of the open interest of first two month VIX futures, and the gross size of VIX ETPs tracking the first two VIX futures represents more than 100% of the open interest of the first two VIX futures.

250. As a result, "the potential for short and levered ETPs to start buying VIX futures quickly on a sudden vol spike has grown." Thus, "***[t]he most important takeaway*** … is that short VIX ETPs now have more vega to buy on a given vol spike than ever before—leaving ***the potential for an outsized increase in volatility should the SPX sell off sharply***," the report warned. It gave as an example the fact that "a 3-point spike in VIX futures (i.e. from the current weighted average of 11.5 to 14.5) would drive VIX ETP issuers to buy $110mm vega—double the highest ever seen before 2017. This would be around 60% of daily 1st/2nd VIX futures volume, and around 30% of open interest." Additionally, the Fishman Report observed that "***VIX ETP rebalancing would be most impactful*** should there be a quick SPX selloff near the end of a trading day, pushing issuers to rebalance positions quickly to avoid unhedged overnight risk (ETN issuers) …." Clients were thus advised to purchase calls on VIX futures given "***[t]he potential for inverse ETP rebalancing to contribute to a severe volatility spike*** …."

251. Notably, the Fishman report was disseminated only to Goldman Sachs clients and Wall Street market professionals with an interest in volatility markets. It was not disseminated publicly. Plaintiff did not see or know about the Fishman report. The Report was not covered by any major financial media.

252. Nevertheless, on information and belief, the market professionals at Credit Suisse who were involved in rebalancing XIV and who were responsible for the statements in the 2018 Supplement regularly followed the commentary and reports of Fishman, who is a highly respected derivatives and volatility market researcher. Those professionals had access to and reviewed the Fishman report. This can be inferred from the fact that, as part of their jobs, market professionals at large Wall Street firms are expected to, and routinely do, keep abreast of research, analysis, and literature issued by their peers at other large Wall Street firms on their areas of expertise and responsibility.

253. Notably, the Fishman Report echoed earlier warnings raised by other market professionals.

254. In October 2015, a little-known quantitative hedge fund called Artemis Capital posted an obscure, 50-page report on its website enigmatically titled "Volatility and the Allegory of the Prisoner's Dilemma—False Peace, Moral Hazard, and Shadow Convexity." On the twenty-third page thereof, Artemis observed that "[t]he growth of short volatility exchange traded products ('ETPs') since 2012 is nothing short of extraordinary" and that, "[a]s the short and leveraged volatility complex becomes more dominant ***it is contributing to dangerous self-reinforcing feedback loops with unknowable consequences***." Specifically, Artemis warned that a sudden decline in the stock market "***may expose a hidden liquidity gap in the short VIX complex that could unleash a monster***." Artemis quantified this potential liquidity gap "by gauging the percentage of VIX open interest and volume required by exchange-traded products for rebalancing …." It estimated that during the "market stress points" of October 2014 and August 2015, the rebalancing the short and leveraged volatility ETPs then existing "required upward of 40-50% of the total liquidity of VIX futures" as measured by average trading volume and open interest. It

also considered the largest one-day VIX move in history, *i.e.*, the +64% jump that occurred on February 27, 2007 when the VIX went from 11.15 to 18.31. "This was not even a period of high financial stress!", it observed. "If a similar volatility spike occurred today, given the current size of the short VIX complex, the ETPs by themselves would require an estimated 95% of further exacerbating the nonlinearity. ***The VIX futures market may struggle to absorb the demand for long volatility*** and dealers would be forced to rely on other sources for forward volatility."

255. In October 2017, Artemis posted another report on its website titled "Volatility and the Alchemy of Risk—Reflexivity in the Shadows of Black Monday 1987," noting again the existence of a material risk of a liquidity gap in the VIX futures market posed by the rebalancing activities of inverse VIX ETPs. It warned that, based on such risk, inverse-VIX products were "a class action lawsuit waiting to happen."

> Short and leveraged volatility ETNs contain implied short gamma requiring them to buy (sell) a non-linear amount of VIX futures the more volatility rises (falls). ***The risk of a complete wipe out in the inverse-VIX complex in a single day is a very real possibility given the wrong shock (as Artemis first warned in 2015)***. The largest one day move in the VIX index was the +64% jump on February 27, 2007. If a similar move occurred today a liquidity gap would likely emerge…. ***In this event, inverse-VIX products will resulting in major losses for scores of retail investor…. The products are a class-action lawsuit waiting to happen***.

256. Similarly, in October 2017, Stuart Barton, a partner of the hedge fund firm Invest In Vol, published a report on Invest In Vol's website titled "VIX ETPs: A Crowded Trade?" There, Barton described the size of the VIX ETP market—including, specifically, XIV—as "staggering" and warned that continued growth in VIX ETP AUM could make that market fragile and unstable because of the risk that the options and futures markets would be unable to digest those products' rebalancing requirements without there being a "meaningful impact" on the market itself. He observed that

> for every 1% the S&P 500 moves down, the group of market makers, dealers, and hedge funds that hold this hedge will typically have to sell approximately $20bn of S&P 500 stock and futures to rebalance their VIX ETP position! …. So for a 1% move in the S&P 500 market, VIX ETP hedging could account for as much as a seventh of all the day's volume and for moves larger than 1% it may account for significantly more. ***This is a staggering observation given the continued growth in short volatility interest in VIX ETPs. If short volatility interest continues to grow, the volatility of the S&P 500 market may actually rise, as dealers rush to cover their short Gamma positions***.

257. Given Credit Suisse's professed expertise, sophistication, and experience in the volatility markets as well as its unique insider visibility into those markets as the issuer of some of the largest volatility-linked ETPs then available, Credit Suisse was at least as knowledgeable as Fishman, Artemis, and Barton about the risks facing XIV. This included, specifically, the risks raised by the growth of the volatility-linked ETP market and XIV in particular, the limited liquidity of the VIX futures market, and the inability of that market to absorb the demand created by the rebalancing requirements of XIV other inverse and leveraged ETPs. Indeed, Credit Suisse was more deeply involved in the volatility markets than Goldman Sachs, which did not have any volatility-linked ETPs.

258. Credit Suisse ran comparable, if not more sophisticated, analyses and models of those risks than Fishman, Artemis, and Barton because, as alleged above, Credit Suisse, as a VIX-linked ETN issuer, was under an obligation to ensure that, each day, it would be able to rebalance, *i.e.*, to obtain the correct number of VIX futures to hedge entirely its exposure to its ETNs and thereby avoid owning an unauthorized, unhedged exposure to volatility through those obligations, which would threaten the firm's capital.

259. That Credit Suisse in fact ran such analyses and models can clearly be inferred from Credit Suisse's response to the earlier explosive growth of the TVIX, the firm's 2x long VIX ETN. On February 22, 2012, Credit Suisse suspended the issuance of new shares of the TVIX out of

concerns that its AUM had grown so large that Credit Suisse's rebalancing activities would start to have a material influence on the price of VIX futures, rather than simply track that market. In its public filings, Credit Suisse admitted that the suspension was "due to internal limits on the size of the ETNs." The "internal limits" in question clearly were established based on rebalancing-risk analysis and modeling. On information and belief, Credit Suisse engaged in the same analysis and modeling with respect to all its VIX-linked ETN products, including XIV. All such products were issued off the same Registration Statement and were managed by the same professionals within Credit Suisse.

260. Furthermore, similar rebalancing-risk analysis and modeling shows, based on market price and volume data that existed prior to January 29, 2018, that there was a 99.73% statistical probability that XIV's rebalancing requirements would have required the purchase or sale of ***more than 100%*** of the average daily volume of the VIX futures market at least once every 300 trading days. This probability corresponded to a three standard deviation move up or down in the VIX futures market and posed a clear risk that Credit Suisse's rebalancing activities would have a highly material impact on the level of the VIX futures. Credit Suisse's own proprietary rebalancing-risk analysis and modeling, which Credit Suisse continuously monitored, revealed these facts to Credit Suisse prior to the issuance of the 2018 Supplement. Accordingly, there was no basis for Credit Suisse's statement in the 2018 Supplement that it had "no reason to believe that our or their hedging activities will have a material impact on the level of the applicable underlying Index …." Rather, given the likelihood that it might require the purchase or sale of more than 100% of the average daily volume of VIX futures, the risk of a material impact on the level of the VIX futures from Credit Suisse's rebalancing activities clearly existed. Moreover, such risk and

its high degree of materiality was perceived by sophisticated market professionals, including not just Fishman, Artemis, and Barton, but, on information and belief, by Credit Suisse itself.

261. Notably, the Artemis and Barton reports were published on obscure and specialized websites and were not covered by any major U.S. financial media. Plaintiff did not know about those reports prior to investing in XIV. Additionally, there was no means by which Plaintiff or other XIV investors were alerted to their existence, and there is nothing to suggest that Plaintiff or any other individual investor in XIV accessed those reports prior to investing in XIV. Those sites received scant internet traffic prior to the collapse of XIV. Furthermore, the titles of the Artemis reports gave no indication that they had anything to do with XIV. The 2015 Artemis report did not mention XIV until page twenty-three, and the 2017 Artemis did not mention it at all.

262. At minimum, it cannot be said that the information related to the subject risks disclosed in Fishman, Artemis and Barton reports were conveyed to Plaintiff or other public investors in XIV with a degree of intensity or credibility sufficient to counterbalance the misleading statements and omissions contained in the 2018 Supplement.

263. Furthermore, prior to February 5, 2018, nothing about the prior trading history of XIV alerted Plaintiff or other investors to the undisclosed risk of a liquidity gap in the VIX futures. Indeed, prior volatility spikes had occurred, but when they did, XIV and other leveraged and inverse VIX-linked ETPs were at considerably lower AUM levels than they were by January 29, 2018. For example, a spike in the VIX had occurred from August 4 to August 8, 2011. At that time, however, the aggregate AUM of the leveraged and inverse VIX-linked ETP universe, including XIV, was only $0.66 billion. Similarly, when a spike in the VIX transpired from August 20 to August 24, 2015, the aggregate AUM of the leveraged and inverse VIX-linked ETP universe, including XIV, was $1.93 billion. And when the VIX spiked between June 9 and June 24, 2016,

the aggregate AUM of the leveraged and inverse VIX-linked ETP universe, including XIV, was $2.71 billion. At those AUM levels, the rebalancing requirements of the ETPs had not triggered a catastrophic feedback loop propelling VIX futures skyward while driving down the value of XIV.

264. Plaintiff thus had no reason to suspect that the claim in the 2018 Supplement that Credit Suisse had "no reason to believe that our hedging activities will have a material impact on the level of the applicable underlying Index" was wrong. Credit Suisse, however, with its proprietary modeling capabilities, knew otherwise. In particular, Credit Suisse knew—just like Fishman, Artemis, and Barton—or recklessly disregarded that that, by at least January 29, 2018, there was, in fact, ample reason to believe that Credit Suisse's rebalancing activities could have a material impact on level of the VIX futures—namely, that the tremendous growth in the aggregate AUM of the inverse and leveraged VIX-linked ETP universe, including XIV, which was, by then $3.18 billion, had created rebalancing requirements that, on volatile days, risked generating a catastrophic feedback loop of purchasing in the VIX futures market that would cause XIV's value to evaporate in a matter of minutes. As Fishman, Artemis, and Barton warned, and Credit Suisse knew or recklessly disregarded, such AUM growth created a highly material risk of a liquidity gap that could destroy the value of XIV.

265. Nevertheless, this grave risk was not disclosed in the 2018 Supplement, but was, instead, misleadingly disclaimed by the anodyne statement that Credit Suisse had "no reason to believe that our hedging activities will have a material impact on the level of the applicable underlying Index." In fact, the 2018 Supplement misleadingly omitted any indication whatsoever that the size of the leveraged and inverse ETP universe, including, primarily, the AUM of XIV, was even a risk factor.

C. Credit Suisse's Risk Management Structure Ensured that Credit Suisse and the Individual Defendants Knew or Recklessly Disregarded the Undisclosed Liquidity Gap Risks

266. Due to the risk management structure in place at Credit Suisse, the firm itself and its senior executives were aware of, or at the very least recklessly disregarded, the liquidity gap risks raised by the enormous growth of XIV. Indeed, Credit Suisse's July 1, 2016, announcement conditioning the sale of additional XIV ETNs on the purchasers' entering into swap transactions with Credit Suisse—a step designed to protect Credit Suisse from liquidity gap risk—was required to be approved by the CARMC, and thus Defendants Thiam and Mathers, as it represented a material change to Credit Suisse's risk exposure.

267. On March 24, 2017, Credit Suisse filed its 2016 Annual Report with the SEC on Form 20-F (the "2016 Annual Report" or the "Report"), which explained in detail the Bank's extensive risk protocols and reporting mechanisms. The Report proclaimed that "the prudent taking of risk in line with our strategic priorities" was "fundamental" to Credit Suisse's business as a leading global bank and "ensuring that capital is well deployed to support business activities."

268. In describing the Bank's "disciplined" risk culture, the Report stated:

> We base our business operations on conscious and disciplined risk-taking . . . We establish a clear risk appetite that sets out the types and levels of risk we are prepared to take; We actively monitor risks and take mitigating actions where they fall outside accepted levels; Breaches of risk limits are identified, analyzed, and escalated, and large, repeated or unauthorized exceptions may lead to terminations, adverse adjustments to compensation or other disciplinary action.

269. The Report emphasized that, to ensure the effectiveness of the Bank's risk controls, there was "strong involvement of senior management and the Board of Directors" in the Bank's risk management procedures. Indeed, the Report stated the Bank had established a sub-committee of its Executive Board, CARMC, consisting wholly of the Bank's most senior officers. CARMC met regularly on a monthly basis and included "the chief executive officers (CEOs) of the Group

and the divisions, the Chief Financial Officer, the Chief Risk Officer (CRO) and the Treasurer." Thus, Defendants Thiam and Mathers were on the CARMC.

270. Further, the Report stated that CARMC also played a central role in the Bank's risk management procedures, as it was responsible for actively monitoring risk at the highest level, recommending overall risk limits for the Bank to the Board, and setting and allocating risk limits among the Bank's different lines of business:

> [CARMC] is responsible for supervising and directing our risk profile, recommending risk limits at the Group level to the Risk Committee and the Board, establishing and allocating risk limits among the various businesses, and for developing measures, methodologies and tools to monitor and manage the risk portfolio.

271. The 2016 Annual Report explained that risk limits were critical to the Bank's risk management procedures, as they were designed "to maintain our risk profile within our overall risk appetite." The Report explained that "[l]imits are binding thresholds that require discussion to avoid a breach and trigger immediate remediating action if a breach occurs."

272. The Report also stated that "[w]hile the primary purpose [of risk limits] is risk management, risk limits are also useful tools in the identification of trading misconduct and unauthorized trading activities."

273. The Report stated the Bank had several levels of risk limits within its extensive risk management framework, the breach of any one of which would trigger immediate escalation procedures to notify senior management. Specifically, the Report stated the "overall risk limits" for the Bank were "set by the Board in consultation with the Risk Committee and are binding," and that any breach of these limits "would result in an immediate notification to the chairman of the Board's Risk Committee and the Group CEO, and written notification to the full Board at its next meeting":

> The overall risk limits for the Group are set by the Board in consultation with its Risk Committee and are binding. In the rare circumstances where a breach of these limits would occur, it would result in an immediate notification to the Chairman of the Board's Risk Committee and the Group CEO, and written notification to the full Board at its next meeting. Following notification, the Group CRO may approve positions that exceed the Board limits up to a predefined level and any such approval is reported to the full Board. Positions that exceed the Board limits by more than the predefined level may only be approved by the Group CRO and the full Board acting jointly. In 2016 and 2015, no Board limits were exceeded.

274. Thus, Thiam, as CEO, received "immediate notification" of any and all breaches of risk limits, including those relating to XIV.

275. The next level of risk limits was set by CARMC "[i]n the context of the overall risk appetite of the Group, as defined by the limits set by the Board and its Risk Committee." Specifically, CARMC was "responsible for allocating divisional risk limits and more specific limits deemed necessary to control the concentration of risk within individual lines of business."

276. The Report emphasized that CARMC's "limits are binding and generally set close to the planned risk profile to ensure that any meaningful increase in risk exposures is promptly escalated."

277. The final level of limits was set by divisional management, who would "use[] a detailed framework of individual risk limits designed to control risk-taking at a granular level by individual businesses and in the aggregate." These risk controls were intended to, among other things, "trigger senior management discussions with the businesses involved, risk management and governance committees in case of change in the overall risk profile."

278. While "divisional chief risk officers and certain other members of senior management" had authority to "temporarily increase" these more granular limits "by an approved percentage not for a specified maximum period," significantly, any excess was "subject to formal escalation procedures and must be remediated or expressly approved by senior management."

Moreover, even in this circumstance, senior management was required to continuously monitor and renew its approval of any excesses that were not remediated within ten days:

> Senior management approval is valid for a standard period of ten days (or fewer than ten days for certain limit types) and approval has to be renewed for additional standard periods if an excess is not remediated within the initial standard period.

279. Credit Suisse also has a Valuation Risk Management Committee ("VARMC"), which is chaired by its CFO, Defendant Mathers, which "is responsible for establishing policies regarding the valuation of certain material assets and the policies and calculation methodologies applied in the valuation process." The VARMC determined the VaR regimen—discussed further below—and data sources for analyzing both the asset class net numbers and the numbers for a product like XIV.

280. The 2016 Annual Report also describes another committee, the Risk Processes & Standards Committee ("RPSC"), which "reviews major risk management processes, issues general instructions, standards and processes concerning risk management, approves material changes in market, credit and operational risk management standards, policies and related methodologies, and approves the standards of [the Bank's] internal models used for calculating regulatory capital requirements." The RPSC would have reviewed the flags and alarms like those created by the rebalancing-risk analysis and modeling described above.

281. Finally, the Report describes the Reputational Risk & Sustainability Committee ("RRSC"), which "sets policies and reviews processes and significant cases relating to reputational risks and sustainability issues. It also ensures compliance with [the Bank's] reputational and sustainability policies and oversees their implementation." In other words, the RRSC is supposed to prevent bad publicity like news reports of XIV's collapse.

282. As described in the 2016 Annual Report, a metric known as Value-at-Risk ("VaR") was "one of the main risk measures for [risk] limit monitoring." VaR:

> quantifies the potential loss on a given portfolio of financial instruments over a certain holding period and that is expected to occur at a certain confidence level. Specifically, Credit Suisse's VaR model uses a "two-year historical dataset, a one day holding period and a 98% confidence level. This means that we would expect daily mark-to-market trading losses to exceed the reported VaR not more than twice in 100 trading days over a multi-year observation period. . . . Our VaR used for limit monitoring purposes also uses a two-year historical dataset, a one-day holding period and a 98% confidence level.

283. Credit Suisse also "***estimate[d] losses associated with unusually severe market movements***," "including stressed VaR, position risk and scenario analysis."

284. On March 23, 2018, Credit Suisse filed its 2017 Annual Report with the SEC on Form 20-F ("2017 Annual Report"). The 2017 Annual Report stated that the average VaR for Credit Suisse's entire equities asset class throughout the previous year was $10 million, with a maximum VaR of $13 million for the asset class.

285. Even dividing XIV's approximate $1.8 billion loss by ***100*** still shows a loss larger than the VaR for Credit Suisse's entire equities asset class.

286. Credit Suisse's CARMC, and thus the Individual Defendants, allowed the risk controls and risk levels to be breached because they calculated that Credit Suisse could make money at its investors' expense. Credit Suisse knew the structure of XIV meant that the Bank was paid by investors to bet on volatility returning. Credit Suisse knew that once volatility spiked—as it knew was a certainty—Credit Suisse would squeeze the end-of-day rebalancing market, cover itself, and then exercise the Acceleration Option only after it had driven XIV into the ground, paying investors pennies on the dollar while pocketing hundreds of millions in profit.

287. Investors relied on Credit Suisse's statements regarding their internal risk limits.

D. A Strong Inference of *Scienter* is Raised by the Prior Episodes of Market Volatility, the July 2016 Announcement, and Credit Suisse's Additional Offerings of XIV Notes

288. Due to sustained periods of stability in the market, XIV noteholders for the most part saw the value of XIV Notes climb from 2010 until 2018. As alleged above, however, on three occasions in 2011, 2015, and 2016, significant episodes of market volatility caused the value of VIX futures contracts to rise and, correspondingly, the value of XIV Notes to drop. During these three volatility spikes, Credit Suisse, as well as other issuers of volatility-linked ETPs, bought large quantities of VIX futures contracts, which were increasing in value, in order to offset or "hedge" against potential losses in the ETPs they issued, which were decreasing in value. Indeed, Credit Suisse routinely hedged by taking short positions on VIX futures contracts.

289. During the three prior episodes of increased volatility, however, there was insufficient liquidity in the VIX futures market—that is, not enough VIX futures contracts to meet the hedging demand. As a result, Credit Suisse's hedging purchases caused the price of VIX futures contracts temporarily to spike over and above what would have been expected based on market volatility alone.

290. Pursuant to Credit Suisse's internal risk protocols, all three of these liquidity incidents were promptly reported to Credit Suisse's Capital Allocation and Risk Management Committee (CARMC), of which the Individual Defendants were members. In response, as alleged above, Credit Suisse sought alternative ways to hedge its own exposure to XIV Notes. Specifically, as alleged above, on July 1, 2016, Credit Suisse announced that it was reserving the right to condition all future sales of XIV notes on the counterparty's agreement "to sell to Credit Suisse certain hedging instruments consistent with Credit Suisse's hedging strategy, including but not limited to swaps."

291. At the time of the July 2016 Announcement, Credit Suisse had observed five years of low market volatility punctuated by three volatility spikes. During these brief volatility spikes, VIX futures prices spiked at the end of the trading day in a manner disproportionate to what would normally be expected based on market volatility alone.

292. Sophisticated investors like Credit Suisse routinely analyze patterns in market data to attempt to predict and profit from future market activity. The fact that the July 2016 Announcement was issued only seven days after the most significant volatility spike in 2016 and that it granted Credit Suisse the right to obtain additional instruments to hedge its exposure to sales of XIV Notes, raises an inference that the announcement directly reflected Credit Suisse's awareness of the impact of its hedging strategy as well as its view that occasional spikes in market volatility would likely continue.

293. Following the July 2016 Announcement, Credit Suisse increased the volume of XIV notes in the market. On June 30, 2017, it offered an additional 5,000,000 notes on top of the roughly 9,000,000 notes that were already issued and outstanding. And on January 29, 2018, it offered another 16,275,000 notes on top of the roughly 10,800,000 notes then-outstanding. While only a portion of the 16,275,000 notes were ultimately sold between January 29 and February 5, this last offering flooded the market with millions of XIV Notes just days before their value collapsed. Notably, Credit Suisse offered and issued these notes despite shareholder pressure to eliminate sales of volatility-linked ETNs.

294. Credit Suisse also took these actions even though it knew that increasing the volume of XIV notes outstanding would require Credit Suisse, in the event of another jump in market volatility, to increase its hedging activity by purchasing additional VIX futures contracts. Indeed, Credit Suisse thereby knowingly or recklessly exacerbated the liquidity issues it had already

observed in the VIX futures market by increasing the number of XIV notes outstanding through its offerings of June 30, 2017 and January 29, 2018. When Credit Suisse offered 16,275,000 XIV notes on the latter date, it knew that the scale of its hedging strategy would have to increase to account for its additional sales even though the liquidity in the VIX futures market would remain roughly the same. Defendants thus sold millions of these notes either knowing or recklessly disregarding a substantial risk that, when the next volatility event occurred, Credit Suisse's hedging trades would have an even greater negative impact on the value of XIV Notes than they had before.

295. Moreover, the Individual Defendants were aware of this risk, as Credit Suisse's expansion of XIV Notes breached internal risk limits and thus required approval by CARMC. Credit Suisse increased the volume of XIV Notes for a manipulative purpose—specifically, to ensure that Credit Suisse's hedging trades would destroy the value of XIV Notes during the next volatility spike so that Credit Suisse could profit by declaring an Acceleration Event.

296. In fact, Defendants exacerbated the lack of liquidity in the VIX futures market intentionally as part of a manipulative scheme. Specifically, they manipulated the market by issuing millions of additional XIV notes knowing or recklessly disregarding the virtual certainty that their own hedging activity would trigger a liquidity squeeze in VIX futures contracts, destroy the value of XIV Notes, and allow Credit Suisse to accelerate and redeem the notes at a substantial loss to investors while locking in a profit for its own account.

E. Defendants' Motive and Opportunity to Commit Fraud

297. Defendants also had motive and opportunity to engage in the manipulative scheme alleged herein. First, the self-dealing structure of the XIV notes, which would allow Credit Suisse to choose how and when it hedged and therefore to profit if the value of the notes collapsed, provided both motive and opportunity for Credit Suisse to manipulate the market. Credit Suisse's

effort, through its January 29, 2017 offering, to more than double the volume of XIV notes outstanding enhanced the opportunity for manipulative acts in the days leading up to the market's collapse.

298. Second, as alleged above, Thiam was under significant pressure to shift Credit Suisse's investment arm away from volatile assets like XIV notes. Credit Suisse's scheme to expand and then destroy the value of XIV notes would have allowed the bank to profit substantially while realizing Thiam's strategic goal, as alleged above, of "right-sizing" Credit Suisse's investment division.

299. Third, as alleged above, in March 2018, Thiam was awarded a $10.2 million discretionary bonus for successfully shifting Credit Suisse away from volatile assets such as XIV Notes. Notably, as alleged above, this bonus was paid after the XIV notes collapsed and specifically was in recognition of the fact that Thiam's "strategic shift" was "paying off."

F. The Individual Defendants Knew or Recklessly Disregarded that the Statements in the 2018 Supplement were Materially Misleading or False

300. As members of the CARMC, Defendants Thiam and Mathers knew of the previous liquidity issues in the end-of-day VIX futures market after sharp VIX spikes.

301. Defendant Mathers, who has been CFO, and thus on the CARMC and head of the VARMC, since 2010, specifically had knowledge of, or at the very least recklessly disregarded, the liquidity issues arising during the August 2011, August 2015, and June 2016 VIX spikes. Defendant Thiam, who had been CEO of Credit Suisse since July 1, 2015, specifically had knowledge of, or at the very least recklessly disregarded, the liquidity issues arising during the August 2015 and June 2016 VIX spikes.

302. Both Thiam and Mathers, by virtue of their positions as CEO and CFO, respectively, knew (i) of the July 2016 Announcement regarding Credit Suisse's ability to demand

swaps in exchange for sales of XIV notes to meet its hedging strategy, and (ii) that the reason for the July 2016 Announcement was because of the liquidity issues experienced during the previous VIX spikes. Further, Thiam and Mathers knew of the July 2016 Announcement and the reasons for the announcement by virtue of their roles on the CARMC, which specifically was tasked with recommending risk limits for Credit Suisse and allocating divisional risk limits for the asset class containing XIV.

303. By virtue of their roles on the CARMC, Defendants Thiam and Mathers also knew, or at the very least recklessly disregarded, that XIV had grown far too large to be adequately hedged by the underlying VIX futures market, and that Credit Suisse's hedging activities during the next VIX spike would cause XIV to collapse. According to its 2016 Annual Report, Credit Suisse "estimate[d] losses associated with unusually severe market movements," "including stressed VaR, position risk and scenario analysis." As head of the VARMC, Defendant Mathers specifically knew, or at least recklessly disregarded, that XIV's VaR exceeded the maximum VaR for Credit Suisse's entire equities asset class. As the CEO of Credit Suisse, Thiam was immediately notified of any breach of risk limits.

304. Thiam's response to nearly $2 billion in investor losses further supports his scienter. Defendant Thiam stated: "Really it's a matter for regulators whether they need to stop retail investors from investing in [products like XIV]."[18] In other words, Thiam knew he was selling a dangerous product that was structured and being used in a manner at odds with Credit Suisse's characterizations, but saw no problem in profiting at investors' expense.

305. Indeed, Thiam actively attempted to conceal the fraud through a series of evasive explanations. On February 14, 2018, Defendant Thiam was interviewed by Bloomberg, and stated

[18] CNBC *supra* note 11.

that, with respect to XIV, the decision to announce an Acceleration Event "was actually to protect investors. The product stopped trading, it was quasi-impossible to price, and we needed to give certainty to the market at the market open. So before the morning—and we went through a long process, we don't make these decisions lightly, there are people involved from every aspect of the business, from compliance to the front office—and they collectively—I don't make these types of decisions—they collectively reached a decision which was in the interest of investors, which was to close it. But there are quite a few products like that in the market, because they serve a useful purpose. They allow market participants to manage their risk better."[19]

306. These assertions, too, were patently false, further supporting Thiam was actively concealing that the real reason to announce an Acceleration Event was for Credit Suisse to profit at its investors' expense. XIV had not "stopped trading." To the contrary, investors bought approximately $700 million in XIV notes during aftermarket trading on February 5, 2018. Nor was XIV "quasi-impossible to price." Neither Credit Suisse nor Janus offered any explanation for the freeze in updating XIVIV on February 5, 2018. To the extent the freeze occurred because XIV became "quasi-impossible to price," this was due to Credit Suisse's own actions. In any event, XIVIV began to update again beginning at 5:09:05 p.m., so Thiam's claim that Credit Suisse closed XIV on February 6 because it was "quasi-impossible to price" for an hour on February 5 simply makes no sense.

307. Finally, in view of Credit Suisse's hundreds of millions in profit and investors' $1.8 billion loss, the decision to close XIV was clearly not "in the interest of investors," but rather it was in Credit Suisse's interest to announce the Acceleration Event to lock in the lowest possible redemption value on XIV notes. Had Credit Suisse acted in the "interests of investors," it could

[19] Bloomberg *supra* note 4.

have alerted them of an Acceleration Event as early as 4:09:48 p.m. on February 5, halted trading at that time, halted trading as soon as it knew at 4:10 p.m. that XIVIV was failing to properly update in real time, or notified investors XIVIV was inaccurate. The deceptive nature of Defendant Thiam's post hoc explanations supports his concealment of the fraud.

308. During the same February 14, 2018 Bloomberg interview, Thiam, alluding to his three-year restructuring plan, stated that "there will be further cost cuts in the business this year…."

309. On March 23, 2018, Defendant Thiam was awarded 9.7 million Swiss francs ($10.2 million) in compensation for 2017, "as his strategic shift toward managing money for wealthy clients showed signs of paying off…."

310. On April 25, 2018, Thiam gave another interview to Bloomberg. He described his three-year restructuring plan as: "this is the part we love and we want to grow" and "this is the part we don't want . . . and we said we will get rid of it, and that's almost done."

311. In July 2018, Credit Suisse made good on Thiam's promise to continue cuts when it announced the closing of two other VIX-related ETNs, VelocityShares VIX Medium Term ETN (VIIZ) and VelocityShares Daily 2x VIX Medium Term ETN (TVIZ).

312. Notably, the frauds alleged herein are consistent with Credit Suisse's long history of placing its own profits ahead of its investors. On January 28, 2017, the Department of Justice ("DOJ") announced a $5.28 billion settlement with Credit Suisse stemming from its sales of residential mortgage-backed securities ("RMBS"). The DOJ charged that Credit Suisse disregarded its own risk controls and procedures so it could sell, at a significant profit, investments it knew would fail. Principal Deputy Associate Attorney General Bill Baer stated that "Credit Suisse claimed its mortgage backed securities were sound, but in the settlement announced today the bank concedes that it knew it was peddling investments containing loans that were likely to

fail[.]" More recently, in November 2017, the New York Department of Financial Services announced it had fined Credit Suisse $135 million for its conduct in the foreign exchange business, in which Credit Suisse undertook efforts "directed at maximizing profits or minimizing losses in Credit Suisse's trading book, to the detriment of customers and a competitive marketplace[.]" The consent order is replete with evidence showing that Credit Suisse executives not only knew of, but promoted front-running and the rejection of clients' orders so that Credit Suisse could profit to the detriment of its investors.

G. The Individual Defendants' Familiarity with the Operations and Financial Results of Credit Suisse's Equity Derivatives Business

313. The circumstances also give rise to a strong inference that the Individual Defendants knew about or recklessly disregarded the risk of a liquidity-gap in VIX futures which could devastate XIV. In Credit Suisse's public earnings calls with analysts each quarter, the Individual Defendants made statements, and held themselves out as particularly knowledgeable, about Credit Suisse's equity derivatives business and its financial results and operations, of which Credit Suisse's volatility-linked ETN products—including XIV—comprised a significant part.

314. Indeed, at all relevant times, a material portion of the revenues of Credit Suisse's equity derivatives business stemmed from the fees that Credit Suisse earned in connection with managing the firm's volatility-linked ETNs, of which XIV was the largest. Credit Suisse's equity derivatives business also generated substantial revenues in the form of trading profits from front-running those ETNs' daily rebalancing. It thus can be strongly inferred that the Individual Defendants knew of the liquidity-gap risks to XIV, inasmuch as those risks—which eventually materialized—threatened the ability of Credit Suisse's equity derivatives business to continue earning those fees and profits.

315. On Credit Suisse's Q3 2017 Earnings Call of November 2, 2017, defendant Thiam remarked to analysts that the revenues of Credit Suisse's equity derivatives business were "volatility-dependent." On the same earnings call, defendant Mathers stated that Credit Suisse had "seen a pick-up in equity sales and trading activities where we benefited from the higher volatility in Asian markets and some improvement in client activity, primarily in equity derivatives."

316. Similarly, on Credit Suisse's Q2 2017 Earnings Call of July 28, 2017, defendant Mathers described a "difficult environment for equity sales and trading" which he attributed to a "lower market volatility and a continued low level of client activity particularly in Equity Derivatives …." On that same call, defendant Thiam stated that the firm's equity derivatives business was "hit hard by the low volatility. So, we're not getting those revenues."

317. Likewise, on Credit Suisse's Q1 2017 Earnings Call of April 26, 2017, defendant Mathers commented that "low levels of volatility … adversely impacted our equity derivatives business", while defendant Thiam stated that such business is nevertheless "amazingly strong" and had a new manager, Ken Pang, who "has done a phenomenal job there." And on Credit Suisse's Q4 2016 Earnings Call of February 2, 2016, defendant Mathers commented on "weaker performance in equity derivatives, partly reflecting low levels of volatility in the quarter."

318. It is thus clear that the Individual Defendants knew or recklessly disregarded the undisclosed liquidity-gap risks to XIV alleged above.

H. Credit Suisse's Risk Management Systems and the Personal Involvement of the Individual Defendants

319. Defendants also had numerous risk protocols and procedures in place which raise a strong inference that they knew or recklessly disregarded the adverse undisclosed facts detailed herein. In particular, the Individual Defendants, as the senior most executive officers of Credit Suisse, made, or caused to be made, the misleading statements and omissions alleged herein,

including by signing the Registration Statement. Indeed, the Individual Defendants held themselves out to investors as persons particularly knowledgeable about the reasons for the XIV's collapse and the content of the Registration Statement. For example, following the February 5, 2018 collapse of the XIV, defendant Thiam told investors that, as a result of his personal involvement, "***I know the [Registration Statement] by heart now***."

320. In addition, due to the risk management structure in place at Credit Suisse, its senior executives—including the Individual Defendants—knew, or at the very least, recklessly disregarded the liquidity issues in the VIX futures market that threatened the XIV. On March 24, 2017, Credit Suisse filed its 2016 Annual Report with the SEC on Form 20-F (the "2016 Annual Report"), which detailed Credit Suisse's extensive risk protocols and reporting mechanisms. The 2016 Annual Report stated that "the prudent taking of risk in line with our strategic priorities" was "fundamental" to Credit Suisse's business as a leading global bank and "ensuring that capital is well deployed to support business activities." In describing Credit Suisse's "disciplined" risk culture, the 2016 Annual Report stated:

> We base our business operations on conscious and disciplined risk-taking.
>
> ***
>
> – We establish a clear risk appetite that sets out the types and levels of risk we are prepared to take.
>
> – We actively monitor risks and take mitigating actions where they fall outside accepted levels.
>
> – Breaches of risk limits are identified, analyzed, and escalated, and large, repeated or unauthorized exceptions may lead to terminations, adverse adjustments to compensation or other disciplinary action ….

321. The 2016 Annual Report emphasized that, to ensure the effectiveness of Credit Suisse's risk controls, there was "strong involvement of senior management and the Board of Directors" in its risk management procedures. Indeed, the 2016 Annual Report stated Credit

Suisse had established a sub-committee of its Executive Board, the Capital Allocation and Risk Management Committee ("CARMC"), consisting wholly of Credit Suisse's most senior officers. CARMC met regularly on a monthly basis and included "the chief executive officers (CEOs) of [Credit Suisse] and the divisions, the Chief Financial Officer, the Chief Risk Officer (CRO), the Chief Compliance and Regulatory Officer and the Treasurer." Thus, defendants Thiam and Mathers were members of the CARMC during the Relevant Period.

322. Further, the 2016 Annual Report stated that CARMC also played a central role in the Credit Suisse's risk management procedures, as it was responsible for actively monitoring risks at the highest level, recommending overall risk limits to the Board, and setting and allocating risk limits among Credit Suisse's different lines of business. It stated in pertinent part:

> [CARMC] is responsible for supervising and directing our risk profile, ***recommending risk limits*** at the Group level to the Risk Committee and the Board, establishing and allocating risk limits among the various businesses, and for developing measures, methodologies and tools ***to monitor and manage the risk portfolio***.

323. The 2016 Annual Report explained that risk limits were critical to Credit Suisse's risk management procedures, as they were designed "to maintain our risk profile within our overall risk appetite." It explained that "[l]imits are binding thresholds that require discussion to avoid a breach and trigger immediate remediating action if a breach occurs." The 2016 Annual Report also stated that, "[w]hile the primary purpose [of risk limits] is risk management, risk limits are also useful tools in the identification of trading misconduct and unauthorized trading activities."

324. The 2016 Annual Report further stated Credit Suisse had several levels of risk limits within its extensive risk management framework, the breach of any one of which would trigger immediate escalation procedures to notify senior management. Specifically, the 2016 Annual Report stated the "overall risk limits" for Credit Suisse were "set by the Board in consultation with the Risk Committee and are binding," and that any breach of these limits "would result in an

immediate notification to the chairman of the Board's Risk Committee and the Group CEO, and written notification to the full Board at its next meeting":

> The overall risk limits for the Group are set by the Board in consultation with its Risk Committee ***and are binding***. In the rare circumstance where a breach of these limits would occur, it would result in an ***immediate notification to the Chairman of the Board's Risk Committee and the Group CEO***, and written notification to the full Board at its next meeting. Following notification, the Group CRO may approve positions that exceed the Board limits up to a predefined level and any such approval is reported to the full Board. Positions that exceed the Board limits by more than the predefined level may only be approved by the Group CRO and the full Board acting jointly. In 2016 and 2015, no Board limits were exceeded.

325. Thus, defendant Thiam, as CEO of Credit Suisse, received "immediate notification" of any and all breaches of risk limits, including those relating to XIV.

326. The next level of risk limits was set by CARMC "[i]n the context of the overall risk appetite of the Group, as defined by the limits set by the Board and its Risk Committee." Specifically, CARMC was "responsible for allocating divisional risk limits and more specific limits deemed necessary to control the concentration of risk within individual lines of business." The 2016 Annual Report emphasized that CARMC's "limits are binding and generally set close to the planned risk profile to ensure that any meaningful increase in risk exposures is promptly escalated." The final level of limits was set by divisional management, who would "use a detailed framework of individual risk limits designed to control risk-taking at a granular level by individual businesses and in the aggregate." These risk controls were intended to, among other things, "trigger senior management discussions with the businesses involved, risk management and governance committees in case of substantial change in the overall risk profile." While "divisional chief risk officers and certain other members of senior management" had authority to "temporarily increase" these more granular limits "by an approved percentage for a specified maximum period," significantly, any excess was "subject to formal escalation procedure . . . with escalation to senior management if certain thresholds are exceeded."

327. Credit Suisse also had a Valuation Risk Management Committee ("VARMC"), which was chaired by its CFO, defendant Mathers. The VARMC "is responsible for establishing policies regarding the valuation of certain material assets and the policies and calculation methodologies applied in the valuation process." The VARMC determined Credit Suisse's Value-at-Risk ("VaR") regimen, including as it related to a product like XIV. As described in the 2016 Annual Report, the VaR metric was "one of the main risk measures for [risk] limit monitoring." It continued in pertinent part: "[VaR] quantifies the potential loss on a given portfolio of financial instruments over a certain holding period and that is expected to occur at a certain confidence level." Specifically, Credit Suisse's VaR model uses a

> two-year historical dataset, a one- day holding period and a 98% confidence level. This means that we would expect daily mark-to-market trading losses to exceed the reported VaR not more than twice in 100 trading days over a multi-year observation period. . . . Our VaR used for limit monitoring purposes also uses a two-year historical dataset, a one-day holding period and a 98% confidence level.

328. Credit Suisse also "estimate[d] losses associated with unusually severe market movements," "including stressed VaR, position risk and scenario analysis."

329. In addition, the 2016 Annual Report described another Credit Suisse risk committee, the Risk Processes & Standards Committee ("RPSC"), which "reviews major risk management processes, issues general instructions, standards and processes concerning risk management, approves material changes in market, credit and operational risk management standards, policies and related methodologies, and approves the standards of [Credit Suisse's] internal models used for calculating regulatory capital requirements." The RPSC would have reviewed the liquidity issues and risks to Credit Suisse posed by XIV and Credit Suisse's volatility-linked ETNs more generally.

330. Finally, the 2016 Annual Report described the Reputational Risk & Sustainability Committee ("RRSC"), which "sets policies and reviews processes and significant cases relating to reputational risks and sustainability issues. It also ensures compliance with [Credit Suisse's] reputational and sustainability policies and oversees their implementation." In other words, the RRSC was tasked with minimizing reputational risks and preventing negative publicity, such as the negative coverage that Credit Suisse received following the destruction of the XIV.

331. Credit Suisse's extensive risk management protocols and procedures required Credit Suisse and the Individual Defendants to become fully apprised of the undisclosed adverse facts alleged in ¶¶ 84-130. XIV exposed Credit Suisse to nearly $2 billion in potential liabilities if it were unable to rebalance due to the VIX futures market's limited liquidity. By comparison, in 2017, Credit Suisse's entire adjusted consolidated pre-tax income was only roughly CHF 2.8 billion (about $2.8 billion). Indeed, as alleged above, in recognition of the material risks posed by the rebalancing requirements of XIV, in July 2016, Credit Suisse changed the conditions under which it would sell new XIV ETNs, allowing it to "condition its acceptance of a counterparty's offer to purchase the ETNs on its agreement to sell to Credit Suisse certain hedging instruments consistent with Credit Suisse's hedging strategy, including but not limited to swaps." This change would have been reviewed and approved by Defendants pursuant to the risk management protocols and procedures detailed herein.

332. In particular, because of their positions with Credit Suisse and their access to material non-public information available to them but not to the public, the Individual Defendants knew that the adverse facts specified herein had not been disclosed to and were being concealed from the public and that the representations being made were then materially misleading. Indeed, the Individual Defendants have acknowledged their personal involvement with XIV given their

role in Credit Suisse's overall risk management controls. On February 14, 2018, defendant Thiam was interviewed by *Bloomberg* and stated that the decision to review the risks posed by XIV and to trigger the acceleration event on February 5, 2018 were run through the Company's extensive risk management procedures. He stated that, while he did not make the decisions individually, they involved people "from every aspect of the business." He stated in pertinent part:

> Because the product stopped trading, it was quasi-impossible to price, and we needed to give certainty to the market at the market open. So before the morning—and this—***we*** went through a long process, ***we*** don't make these decisions lightly, there are people involved from every aspect of the business, from compliance to the front office—and they collectively—I don't make those types of decisions—they collectively reached a decision which was in the interest of investors, which was to close it.

I. Credit Suisse's Knowledge or Reckless Disregard of the Inaccuracy of the Indicative Value after 4:00 p.m. ET

333. At all times, Credit Suisse also knew of or recklessly disregarded the inaccuracy of the Indicative Value after 4 p.m. ET. Credit Suisse had access to information clearly showing that inaccuracy. Specifically, as a large financial institution and the issuer and underwriter of XIV, Credit Suisse had access to the prices of VIX futures (which it actively traded) and to the data feeds for the VIX Short-Term Futures Index and XIV's Indicative Value. Additionally, Credit Suisse held itself out as knowledgeable about those data in the January Supplement, and had a duty to make sure that the statements it made therein regarding them were correct, did not omit material information, and were not materially misleading. The inaccuracy of the Indicative Value was readily ascertainable from those data by a highly sophisticated financial institution such as Credit Suisse.

334. Credit Suisse's knowledge or reckless disregard is also clear from that fact that, in 2010 and again in 2013, Credit Suisse informed the NASDAQ OMX PHLX Stock Exchange (the "PHLX") about the fact that XIV's Indicative Value's was inaccurate after 4 p.m. ET—

information that was then passed on by the PHLX only to certain Wall Street professionals and insiders.

335. Specifically, on November 30, 2010, the PHLX's Listing Qualifications Department issued an Information Circular to "Head Traders, Technical Contacts, Compliance Officers, Heads of ETF Trading, and Structured Products Traders" at Wall Street firms conveying information supplied to it by Credit Suisse with respect to six new ETNS—including XIV—that Credit Suisse had recently issued. Titled "Information Circular: Credit Suisse AG", the PHLX circular set forth various "Information on the Notes …. According to the Issuer", and warned, in pertinent part:

> For trading during each market's pre-market and ***post-market sessions***, market participants should note that additional risks may exist with respect to trading the Notes during these sessions, ***when the underlying index's value or similar value may not be disseminated***.

336. This disclosure appeared again in a PHLX Information Circular issued on December 2, 2013. Like the first circular, the 2013 circular likewise was addressed only to "Head Traders, Technical Contacts, Compliance Officers, Heads of ETF Trading, Structured Products Traders" at Wall Street firms, and expressly conveyed information supplied by Credit Suisse.

337. Nevertheless, the risk disclosure was omitted from the 2018 Supplement.

338. Notably, the PHLX circulars were published only on the website of the PHLX, were addressed only to certain Wall Street professionals and insiders, were not covered by any financial media, and were issued years before the 2018 Supplement. Plaintiff did not know about the PHLX circulars prior to investing in XIV. Additionally, there was no means by which Plaintiff or other XIV investors were alerted to the PHLX circulars' existence, and there is nothing to suggest that Plaintiff or any other individual investor in XIV read the PHLX circulars prior to investing in XIV. At minimum, it cannot be said that the information in the PHLX circulars was conveyed to Plaintiff

or other investors in XIV with a degree of intensity or credibility sufficient to counterbalance the misleading statements and omissions regarding XIV's Indicative Value contained in the 2018 Supplement.

VII. LOSS CAUSATION

339. Defendants' wrongful conduct, as alleged herein, directly and proximately caused the economic loss suffered by Plaintiff. The price of XIV ETNs significantly declined when the information alleged herein to have been concealed from the market, and/or the effects thereof, were revealed, causing investors' losses.

340. Defendants engaged in a scheme to deceive the market and a course of conduct that artificially inflated the price of XIV ETNs and operated as a fraud or deceit on purchasers of XIV ETNs. As detailed above, when the truth about the risks to XIV were revealed, the value of XIV ETNs declined precipitously as the prior artificial inflation no longer propped up the XIV's price. The declines in the price of XIV ETNs were the direct result of the nature and extent of the risks to XIV finally being revealed to investors and the market. The timing and magnitude of the ETN price declines negate any inference that the loss suffered by Plaintiff was caused by changed market conditions, macroeconomic or industry factors, or XIV-specific facts unrelated to the undisclosed risks complained of herein. The economic loss, *i.e.*, damages, suffered by Plaintiff, was a direct result of Defendants' fraudulent scheme to artificially inflate the price of XIV ETNs and the subsequent significant decline in the value of the XIV ETNs when defendants' misleading statements and omissions and the true risks facing XIV ETNs were revealed.

341. At all relevant times, Defendants' materially misleading statements and omissions alleged herein directly or proximately caused the damages suffered by Plaintiff. Those statements were materially misleading and omitted material facts through their failure to disclose a true and accurate picture of the XIV's business, operations and risks, as alleged herein. Plaintiff would not

have purchased XIV ETNs at all or at the prices that Plaintiff paid had it known of the undisclosed risks alleged herein. Before and during the time of Plaintiff's purchases of XIV ETNs, Defendants issued materially misleading statements and omitted material facts necessary to make Defendants' statements not false or misleading, causing the price of XIV ETNs to be artificially inflated. Plaintiff purchased XIV ETNs at those artificially inflated prices, causing it to suffer tens of millions of dollars in damages as complained of herein.

342. Furthermore, as alleged herein, Defendants engaged in practices intended to mislead investors by artificially affecting the prices of XIV notes. Defendants employed devices, schemes, and artifices to defraud, and/or engaged in acts, practices, and a course of business which operated as a fraud and deceit upon the purchasers of XIV notes.

343. Plaintiff has suffered damages from Defendants' manipulative acts in that, in reliance on an assumption of an efficient market free of manipulation, it purchased XIV notes. Plaintiff would not have purchased XIV notes at the prices it paid, or at all, if they had been aware of Defendants' manipulative conduct which artificially affected the prices of XIV notes.

344. As a direct and proximate result of Defendants' wrongful conduct, Plaintiff suffered damages in connection with its purchases of XIV notes.

VIII. APPLICABILITY OF PRESUMPTION OF RELIANCE

A. Entitlement to a Presumption of Reliance under the Fraud-on-the-Market Doctrine

345. At all relevant times, the market for XIV ETNs was an efficient market for the following reasons, among others:

a. XIV ETNs met the requirements for listing, and were listed and actively traded on the Nasdaq, a highly efficient and automated market;

b. The average daily trading volume of XIV was approximately 10 million ETNs in the 12 months preceding its collapse;

c. Credit Suisse and XIV were followed by securities analysts employed by major brokerage firms who wrote reports which were distributed to the sales force and certain customers of their respective brokerage firms. Each of these reports was publicly available and entered the public marketplace;

d. According to VelocityShares' website, as of February 5, 2018, there were nearly 15 million XIV ETNs issued and outstanding, demonstrating a very active and broad market for XIV ETNs;

e. As a regulated issuer, Credit Suisse filed periodic public reports with the SEC;

f. Defendants and the Calculation Agents regularly communicated with public investors via established market communication mechanisms regarding XIV, including the regular dissemination of information regarding XIV on national circuits of major newswire services, the Internet and other wide-ranging public disclosures; and

g. unexpected material news about XIV was rapidly reflected in and incorporated into the price of XIV ETNs.

346. Moreover, analysis indicates that at all relevant times prior to February 5, 2018, the market price of XIV hewed closely to XIV's Indicative Value. Any divergences between the market price and the Indicative Value were immaterial and promptly disappeared in active trading.

347. As a result of the foregoing, the market for XIV ETNs promptly digested current information regarding the XIV from publicly available sources and reflected such information in

the price of XIV ETNs. Under these circumstances, a presumption of reliance applies to Plaintiff's purchases of XIV ETNs.

B. Entitlement to a Presumption of Reliance under *Affiliated Ute Citizens of Utah v. United States*

348. A presumption of reliance is also appropriate in this action under the Supreme Court's holding in *Affiliated Ute Citizens v. United States*, 406 U.S. 128 (1972), because Plaintiff's claims are based, in significant part, on Defendants' material omissions. Because this action involves Defendants' failure to disclose material adverse information regarding XIV's business, operations, and risks, positive proof of reliance is not a prerequisite to recovery. All that is necessary is that the facts withheld be material in the sense that a reasonable investor might have considered them important in making investment decisions. Given the importance of Defendants' materially misleading statements and omissions set forth above, that requirement is satisfied here.

IX. NO SAFE HARBOR

349. Defendants' false or misleading statements alleged to be actionable herein were not forward-looking statements ("FLS"), or were not identified as such by Defendants, but rather, were statements of historical and present fact, and thus did not fall within any "Safe Harbor."

350. Defendants' verbal "Safe Harbor" warnings accompanying any of their oral FLS failed to provide meaningful cautionary statements regarding the specific facts and circumstances facing XIV, and thus were ineffective to shield those statements from liability.

351. Defendants are also liable for any false or misleading FLS pleaded because, at the time each FLS was made, the speaker knew the FLS was false or misleading and the FLS was authorized and/or approved by an executive officer of Credit Suisse who knew that the FLS was false. Further, none of the historic or present tense statements made by defendants were assumptions underlying or relating to any plan, projection, or statement of future economic

performance, as they were not stated to be such assumptions underlying or relating to any projection or statement of future economic performance when made.

X. FEDERAL SECURITIES LAW CLAIMS

COUNT I
For Violation of §10(b) of the Exchange Act and Rule 10b-5 Promulgated Thereunder Against All Defendants

352. Plaintiff repeats and realleges each and every allegation contained above as if fully set forth herein.

353. Defendants carried out a plan, scheme, and course of conduct which was intended to and did: (i) deceive the investing public, including Plaintiff, as alleged herein; and (ii) cause Plaintiff to purchase XIV ETNs at artificially inflated prices. In furtherance of this unlawful scheme, plan, and course of conduct, defendants, and each of them, took the actions set forth herein.

354. Defendants (i) employed devices, schemes, and artifices to defraud; (ii) made untrue statements of material fact and/or omitted to state material facts necessary to make the statements not misleading; and (iii) engaged in acts, practices, and a course of business which operated as a fraud and deceit upon the purchasers of XIV ETNs in an effort to maintain artificially high market prices for XIV ETNs in violation of Section 10(b) of the Exchange Act and Rule 10b-5. All defendants are sued either as primary participants in the wrongful and illegal conduct charged herein or as controlling persons as alleged below.

355. Defendants, individually and in concert, directly and indirectly, by the use, means, or instrumentalities of interstate commerce and/or of the mails, engaged and participated in a continuous course of conduct to conceal adverse material information about XIV ETNs, as specified herein.

356. These defendants employed devices, schemes, and artifices to defraud, while in possession of material adverse non-public information and engaged in acts, practices, and a course of conduct as alleged herein, which included the making of, or the participation in the making of, untrue statements of material facts and omitting to state material facts necessary in order to make the statements made about XIV ETNs and their risks and future prospects in light of the circumstances under which they were made, not misleading, as set forth more particularly herein, and engaged in transactions, practices and a course of business which operated as a fraud and deceit upon the purchasers of XIV ETNs.

357. Defendants engaged in conduct intended to mislead Plaintiff and other investors by artificially affecting the price of XIV notes. Defendants employed devices, schemes, and artifices to defraud, and/or engaged in acts, practices, and a course of business which operated as a fraud and deceit upon the purchasers of XIV notes during the Relevant Period.

358. Plaintiff has suffered damages from Defendants' manipulative acts in that, in reliance on an assumption of an efficient market free of manipulation, it purchased XIV notes. Plaintiff would not have purchased XIV notes at the prices it paid, or at all, if it had been aware of Defendants' manipulative conduct which artificially affected the prices of XIV notes.

359. Each of the Individual Defendants' primary liability, and controlling person liability, arises from the following facts: (i) the Individual Defendants were high-level executives and/or directors at Credit Suisse and members of Credit Suisse's management team or had control thereof; (ii) each of these defendants, by virtue of their responsibilities and activities as a senior officer and/or director of Credit Suisse, was privy to and participated in the creation and development of the Registration Statement and other public statements and omissions of Credit Suisse about XIV ETNs; (iii) each of these defendants enjoyed significant personal contact and

familiarity with the other defendants and was advised of, and had access to, other members of Credit Suisse's management team, internal reports and other data and information about XIV ETNs at all relevant times; and (iv) each of these defendants was aware of Credit Suisse's dissemination of information to the investing public regarding XIV ETNs which they knew or recklessly disregarded was materially false and misleading.

360. Defendants had actual knowledge of the misrepresentations and omissions of material facts set forth herein, or acted with reckless disregard for the truth in that they failed to ascertain and to disclose such facts, even though such facts were available to them. Such defendants' material misrepresentations and/or omissions were done knowingly or recklessly and for the purpose and effect of concealing the risks facing XIV ETNs from the investing public and supporting the artificially inflated price of XIV ETNs. As demonstrated by defendants' misstatements and omissions, defendants, if they did not have actual knowledge of the misrepresentations and omissions alleged, were reckless in failing to obtain such knowledge by deliberately refraining from taking those steps necessary to discover whether those statements were false or misleading. As a result of the dissemination of the materially false and misleading information and failure to disclose material facts, as set forth above, the market price of XIV ETNs was artificially inflated. In ignorance of the fact that market prices of XIV ETNs were artificially inflated, and relying directly or indirectly on the false and misleading statements made by defendants, or upon the integrity of the market in which the securities trades, and/or in the absence of material adverse information that was known to or recklessly disregarded by defendants, but not disclosed in public statements by defendants, Plaintiff acquired XIV ETNs at artificially high prices and was damaged thereby.

361. At the time of said misrepresentations and omissions, Plaintiff was ignorant of their falsity, and believed them to be true. Had Plaintiff and the marketplace known the truth regarding the risks facing XIV ETNs, which were not disclosed by defendants, Plaintiff would not have purchased or otherwise acquired XIV ETNs, or, if Plaintiff had acquired XIV ETNs, it would not have done so at the artificially inflated prices which it paid.

362. By virtue of the foregoing, defendants have violated Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder.

363. As a direct and proximate result of Defendants' wrongful conduct, Plaintiff suffered damages in connection with its purchases and sales of XIV ETNs.

COUNT II
For Violation of §9(a)(4) of the Exchange Act
Against All Defendants

364. Plaintiff incorporates the foregoing paragraphs by reference.

365. During the Relevant Period, Defendants had authority over or controlled the materially false and misleading statements specified above, which they knew or deliberately disregarded were misleading in that they contained misrepresentations and failed to disclose material facts necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading.

366. Defendants made untrue statements of material fact and/or omitted to state material facts necessary to make the statements not misleading

367. Plaintiff has suffered damages in that, in reliance on the integrity of the market, it paid artificially inflated prices for XIV ETNs. Plaintiff would not have purchased XIV ETNs at the prices it paid, or at all, if it had been aware that the market prices had been artificially and falsely inflated by Defendants' misleading statements and omissions.

368. As a direct and proximate result of Defendants' wrongful conduct, plaintiff suffered damages in connection with its purchases of XIV ETNs.

COUNT III
For Violation of §9(f) of the Exchange Act
Against All Defendants

369. Plaintiff incorporates the foregoing paragraphs by reference.

370. Each Defendant willfully participated in the Credit Suisse's violation of §9(a) of the Exchange Act. All defendants willfully participated in Credit Suisse's making of, or control over, untrue statements of material fact and/or omissions to state material facts necessary to make the statements not misleading

371. Plaintiff has suffered damages in that, in reliance on the integrity of the market, it paid artificially inflated prices for XIV ETNs. Plaintiff would not have purchased XIV ETNs at the prices it paid, or at all, if it had been aware that the market prices had been artificially and falsely inflated by Defendants' misleading statements and omissions.

372. As a direct and proximate result of Defendants' willful participation in the foregoing wrongful conduct, Plaintiff suffered damages in connection with its purchases of XIV ETNs.

COUNT IV
For Violation of §20(a) of the Exchange Act
Against All Defendants

373. Plaintiff incorporates the foregoing paragraphs by reference.

374. Each of Defendants named herein were control persons within the meaning of §20(a) of the Exchange Act.

375. The Individual Defendants were each control persons of Credit Suisse by virtue of their positions as directors and/or senior officers of Credit Suisse and CSI. The Individual

Defendants each had a series of direct and/or indirect business and/or personal relationships with other directors and/or officers and/or major shareholders of Credit Suisse. The Individual Defendants signed the Registration Statement and were responsible for its contents and held themselves out to investors as among those most knowledgeable about the XIV.

376. Credit Suisse controlled the Individual Defendants and all of its employees.

377. Defendants named herein each were culpable participants in the violations of §9 and §10(b) of the Exchange Act alleged in the Counts above, based on their having signed or authorized the signing of the Registration Statement, constructing and managing the XIV, creating and disseminating the Registration Statement, marketing and selling XIV ETNs and/or having otherwise participated in the process that allowed the offer and sale of XIV ETNs to investors to be successfully completed.

COUNT V
For Violations of §11 of the 1933 Act
Against All Defendants

378. Plaintiff repeats and realleges each and every allegation contained above as if fully set forth herein.

379. This Count is brought pursuant to §11 of the 1933 Act, 15 U.S.C. §77k, against all Defendants.

380. The Registration Statement inclusive of the 2018 Supplement was inaccurate and misleading, contained untrue statements of material fact, omitted to state other facts necessary to make the statements made not misleading, and omitted to state material facts required to be stated therein.

381. Credit Suisse AG was the registrant for the XIV ETNs. As the issuer of the shares, Credit Suisse AG is strictly liable to plaintiff for the misstatements and omissions.

382. Each of the Defendants was responsible for the contents and dissemination of the Registration Statement including the 2018 Supplement. In addition, defendants Thiam and Mathers both signed the Registration Statement and Defendant CSSU served as the underwriter for the January 2018 Offering.

383. None of the Defendants named herein made a reasonable investigation or possessed reasonable grounds for the belief that the statements contained in the Registration Statement were true and without omissions of any material facts and were not misleading.

384. By reason of the conduct alleged herein, each defendant violated, and/or controlled a person who violated, §11 of the 1933 Act.

385. Plaintiff purchased XIV ETNs pursuant to the Registration Statement.

386. Plaintiff has sustained damages. The value of XIV ETNs has declined substantially subsequent to and due to Defendants' violations.

387. At the time of its purchases of XIV ETNs, Plaintiff was without knowledge of the facts concerning the wrongful conduct alleged herein. Plaintiff entered into a tolling agreement with Defendants, and less than one year has elapsed from the time that Plaintiff discovered or reasonably could have discovered the facts upon which this complaint is based to the time that Plaintiff filed this complaint, inclusive of the period of tolling to which Defendants agreed. Less than three years has elapsed between the time that the securities upon which this Count is brought were offered to the public and the time plaintiff filed this complaint.

COUNT VI
For Violation of §15 of the 1933 Act
Against All Defendants

388. Plaintiff repeats and realleges ¶¶ 1-3, 39-48, 51-71, 74-75, and 164-89 by reference.

389. This Count is brought pursuant to §15 of the 1933 Act against all Defendants.

390. The Individual Defendants were each control persons of Credit Suisse AG and CSSU by virtue of their positions as directors and/or senior officers of Credit Suisse AG and CSSU. The Individual Defendants each had a series of direct and/or indirect business and/or personal relationships with other directors and/or officers and/or major shareholders of Credit Suisse AG and CSSU. The Individual Defendants signed the Registration Statement and were responsible for its contents.

391. Credit Suisse AG and CSSU also controlled the Individual Defendants and all of its employees.

392. Defendants named herein each were culpable participants in the violations of §11 of the 1933 Act alleged in the Count above, based on their having signed or authorized the signing of the Registration Statement, constructing and managing the XIV, creating and disseminating the Registration Statement, marketing and selling XIV ETNs and/or having otherwise participated in the process that allowed the offer and sale of XIV to investors be successfully completed.

XI. PENNSYLVANIA LAW CLAIMS

COUNT VII
For Violation of The Pennsylvania Securities Act, 70 Pa. Cons. Stat. § 1-401(b) Against Defendants Credit Suisse AG and CSSU Pursuant to 70 Pa. Cons. Stat. §§ 1-501 and 1-503

393. Plaintiff repeats and realleges each and every allegation contained above as if fully set forth herein.

394. This claim is brought pursuant to 70 Pa. Cons. Stat. §§ 1-401, 1-501, and 1-503 against Defendants Credit Suisse AG and CSSU.

395. The January 29, 2018 Pricing Supplement states that XIV notes are "Issued by Credit Suisse AG."

396. Defendant CSSU is identified in the 2018 Supplement as the underwriter of XIV.

397. Credit Suisse marketed XIV to investors, including Plaintiff. For example, Credit Suisse published a Prospectus and a Prospectus Supplement advertising XIV on June 30, 2017. Credit Suisse also published periodic pricing supplements further advertising XIV, including on June 30, 2017, August 18, 2017, and January 29, 2018. In the June 30, 2017 Supplement, Credit Suisse states that Defendant CSSU "is a distributor for offers and sales of the [XIV]." In the 2018 Supplement, Credit Suisse states that Defendant CSSU "is the underwriter for the offering and sale of the ETNs of each series." Because of Credit Suisse's marketing efforts, XIV became a popular tool for investors to take short positions in implied volatility.

398. Accordingly, at all times relevant, Defendants Credit Suisse AG and CSSU offered or sold a security, namely XIV ETNs, within the meaning of 70 Pa. Cons. Stat. § 1-501(a)(ii).

399. In the alternative, Defendant CSSU acted as an agent for Defendant Credit Suisse AG who materially aided in the act or transaction constituting the violation within the meaning of 70 Pa. Cons. Stat. § 1-503(a).

400. As described above, Defendants Credit Suisse AG and CSSU, in connection with the offer, sale or purchase of a security in Pennsylvania, namely the purchases Plaintiff made of XIV notes on February 5, 2018, and the forced undervalued sales and redemption of said notes, directly or indirectly, made at least one untrue statement of a material fact or omission to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they are made, not misleading, namely the false representations described above, in violation of 70 Pa. Cons. Stat. § 1-401(b).

401. Plaintiff purchased a security, namely XIV notes, offered by Defendants Credit Suisse AG and CSSU.

402. As a result of their violations of 70 Pa. Cons. Stat. § 1-401(b), Defendants Credit Suisse AG and CSSU are jointly and severally liable to, or required to provide equitable relief to, SFT pursuant to 70 Pa. Cons. Stat. §§ 1-501(a), 1-503(a).

403. Plaintiff repeats and realleges the foregoing paragraphs by reference. For the reasons alleged in ¶¶ 267-79, the Registration Statement contained untrue statements of material fact, omitted to state other facts necessary to make the statements made not misleading, and was not prepared in accordance with the rules and regulations governing its preparation.

404. At all times relevant, each of the Individual Defendants was a partner, principal executive officer or director, or a person occupying a similar status or performing similar functions, of Defendant Credit Suisse AG, within the meaning of 70 Pa. Cons. Stat. § 1-503(a).

405. As a result, the Individual Defendants are jointly and severally liable to, or required to provide equitable relief to, Plaintiff pursuant to 70 Pa. Cons. Stat. § 1-503 for the violations of 70 Pa. Cons. Stat. § 1-401(b) committed by Defendant Credit Suisse AG.

406. Plaintiff received notice of the misstatements and omissions in connection with the offer of XIV by Credit Suisse on January 29, 2018, as described above, on or after February 5, 2018. In the exercise of reasonable diligence, Plaintiff could not have known of the misstatements and omissions described above before February 5, 2018.

COUNT VIII
For Common Law Negligent Misrepresentation under Pennsylvania Law
Against All Defendants

407. Plaintiff repeats and realleges each and every allegation contained above as if fully set forth herein.

408. Defendants owed Plaintiff a duty to provide materially correct information by virtue of the fact that Defendants engaged in XIV-related transactions in which Defendants had a pecuniary interest.

409. Defendants made the materially false statements and omissions described above when they knew, or should have known, that such representations were materially false and/or misleading or omitted facts necessary to make statements they had already made not misleading.

410. Defendants knew and intended that investors such as Plaintiff would rely on the false representations and omissions described above in deciding whether to purchase XIV ETNs.

411. Plaintiff acquired XIV ETNs in ignorance of the misrepresentations and omissions alleged above, and relying directly or indirectly on the false and misleading statements made by defendants, or upon the integrity of the market in which the securities trades, and/or in the absence of material adverse information that was known to or recklessly disregarded by defendants, but not disclosed in public statements by defendants, and was damaged thereby.

412. As the false statements, half-truths, and omissions described above were disclosed and became apparent to the market, the price and value of XIV ETNs declined significantly. By failing to disclose to investors the adverse facts described above, Defendants misled investors, including Plaintiff, as to the true risks of XIV ETNs. The material facts that were omitted or misstated by Defendants, including as to the true risks of XIV ETNs, proximately caused Plaintiff's losses.

413. Plaintiff suffered damages from the negligent acts and omissions by Defendants Plaintiff would not have purchased XIV ETNs at the prices it paid, or at all, if it had been aware of the adverse facts described above.

414. Plaintiff received notice of the misstatements and omissions described above after February 5, 2018. In the exercise of reasonable diligence, Plaintiff could not have known of the misstatements and omissions described above before February 5, 2018.

415. The damages described above incurred by Plaintiff were caused by negligent misrepresentations of Defendants.

COUNT IX
For Common Law Fraud under Pennsylvania Law
Against All Defendants

416. Plaintiff repeats and realleges each and every allegation contained above as if fully set forth herein.

417. Plaintiff brings a common law claim for fraud against all defendants.

418. As alleged above, defendants provided Plaintiff with materially false or misleading material information and failed to disclose material facts about XIV ETNs.

419. Defendants made those misrepresentations and omissions with knowledge of their falsehood. The misrepresentations and omissions made by defendants were intended to induce and actually induced Plaintiff to invest in XIV ETNs.

420. Plaintiff invested in XIV ETNs in ignorance of the misrepresentations and omissions alleged above, and relying directly or indirectly on the false and misleading statements made by defendants, or upon the integrity of the market in which the securities trades, and/or in the absence of material adverse information that was known to or recklessly disregarded by defendants, but not disclosed in public statements by defendants, and was damaged thereby.

421. The fraudulent actions of defendants caused damages to Plaintiff, which is entitled to damages and other legal and equitable relief as a result.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for relief and judgment as follows:

A. Awarding Plaintiff compensatory damages in an amount to be proven at trial for all injuries sustained as a result of Defendants' wrongdoing, including pre-judgment and post-judgment interest, and punitive damages as allowed by law;

B. Awarding Plaintiff extraordinary, injunctive, and/or equitable relief, including in addition to any other relief that is just and proper under the circumstances;

C. Awarding Plaintiff their reasonable costs and expenses incurred in this action, including counsel fees and expert fees; and

D. Awarding such other relief as this Court may deem just and proper.

JURY DEMAND

Plaintiff hereby demands a trial by jury.

Dated: June 4, 2021

Respectfully submitted,

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